

# 9 PM Current Affairs Weekly Compilation

For UPSC CSE mains examination



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**Features :**

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News Papers editorials

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## Housing Affordability in Urban India

UPSC Syllabus Topic: GS Paper 3 -Infrastructure

### Introduction

Housing affordability in urban India has emerged as a serious urban challenge, with home ownership slipping beyond the reach of most city residents. Despite rising urbanisation, **housing prices are driven less by construction costs and more by land speculation, weak land policies, and real estate-led development**. As housing shifts from a **social necessity to a financial asset**, cities increasingly witness a **paradox of vacant homes alongside overcrowded settlements**, deepening inequality and urban exclusion.

### Reasons for the Urban Housing Crisis in India

- 1. Land cost dominates housing prices:** The selling price of urban housing is driven mainly by **land value and location advantage**. Construction costs form only a small share, while **high land prices and developer profits push final housing prices very high**.
- 2. Speculative land holding:** Land is often purchased at low prices and held until cities expand. Owners then seek **higher FAR permissions** to build more and sell at **inflated prices**, increasing unaffordability.
- 3. Weak urban land policy:** State and city land policies allow **speculation to shape housing supply**, turning affordable housing into a **high-value asset rather than a basic service**.
- 4. Housing treated as a financial asset:** Urban housing increasingly functions as a **store of value rather than a place to live**. Apartments are parked, land is hoarded, and supply responds to **purchasing power instead of actual housing need**.
- 5. Paradox of vacancy and shortage:** Cities show a clear contradiction where **lakhs of vacant houses coexist with overcrowded slums**, as housing is built in the **wrong location, form, and price range**.
- 6. Real estate-led urban development model:** Urban growth over the last three decades has relied heavily on **real estate markets**, with the state acting largely as a **facilitator rather than a provider of affordable housing**.

### Impact of the Urban Housing Crisis in India

- 1. Permanent insecurity for urban residents:** When housing becomes unaffordable, **urban life turns unstable**. Families postpone **education, healthcare, and social mobility** merely to manage rent.
- 2. Forced informality in cities:** Many migrants cannot afford formal housing and remain **unregistered, invisible, and excluded** from political and civic systems.
- 3. Erosion of urban citizenship:** Housing exclusion weakens the **right to the city**, as people who cannot live securely lose the ability to **shape urban life and decision-making**.
- 4. Social segregation and ghettoisation:** Urban housing patterns are creating **sharp social divisions**, with marginalised groups, including **Dalits and Muslims**, pushed into segregated settlements.

5. **Exclusion of essential workers:** Workers who build and sustain cities—such as **construction, sanitation, and care workers**—are systematically denied the **right to live within the cities they serve**.

6. **Intergenerational impact on children:** Children inherit not only **poverty but also housing instability**, limiting future opportunities and deepening **long-term inequality**.

### What Should Be Done

1. **Bring vacant housing into use:** Vacant houses and underutilised land must be mobilised. **Anti-speculation measures** can reduce hoarding and increase effective housing supply.

2. **Reform land taxation systems:** **Higher taxes on unoccupied housing** and **lower taxes on occupied homes** can discourage speculative holding and promote actual use.

3. **Make land policy central to reform:** Land policy should focus on **social outcomes rather than only revenue**, curbing speculation while prioritising **access and affordability**.

4. **Expand affordable rental housing:** Ownership is not essential for stability. **Affordable rental housing in well-located areas** can support workers, migrants, and young families.

5. **Learn from global public housing models:**

- Large-scale public housing initiatives show how **land can be taken out of speculative markets and used for social outcomes**.
- In **Singapore**, the state preserved land at regulated prices and developed **mass affordable housing**, ensuring that **70–80% of the population** could access secure, well-located homes connected to jobs and urban services.
- Similarly, in **Dutch**, housing regulations require every private development to allocate a **mandatory share for social housing**, with prices capped well below market rates.
- India can adapt these models by **preserving land for public housing, mandating inclusionary zoning, and prioritising affordable rental housing in central locations** to integrate low- and middle-income groups into the urban economy.

### Limits of Transit-Led Housing Solutions

1. **Transit works only with full services:** Transport links are effective only when new locations also provide **schools, healthcare, and jobs**. Transit alone cannot solve housing exclusion.

2. **Risk of pushing the poor outward:** New housing supply often shifts low-income groups to **city peripheries**, raising commuting costs and **breaking social networks**.

3. **Need for integrated town planning:** Successful urban expansion integrates **housing, employment, amenities, and transport**. Isolated housing developments worsen exclusion.

4. **Market-only logic is insufficient:** Viewing land primarily as a **revenue source** misses the true purpose of cities. Urban planning must aim for **shared growth and spatial justice**.

## Conclusion

Urban housing unaffordability in India reflects **deep failures in land policy and city planning**. Housing has shifted from a **social need to a speculative asset**. Addressing this crisis requires **strong political will, firm regulation of land and housing markets**, and a clear commitment to **affordable, well-located homes** that promote stability, inclusion, and **equal urban citizenship for all**.

## Question for practice:

Discuss how land policy, real estate-led urban development, and the financialisation of housing have contributed to housing unaffordability in urban India and examine their social consequences.

Source: [The Hindu](#)

## India's need for Climate Resilient Agriculture

Context- With climate change a reality today, Indian agriculture needs to cope with the **increasing unpredictability of the weather, declining soil health, and growing air pollution**, for India to continue meeting domestic food demands.

### What is Climate Resilient Agriculture (CRA)?

Climate-resilient agriculture uses a range of biotechnology and complementary technologies to guide farming practices and reduce dependence on chemical inputs, while maintaining or improving productivity.

### Key Components of Climate Resilient Agriculture (CRA)

- Use of **biofertilizers** and **biopesticides** to reduce chemical dependence.
- **Soil microbiome analysis** to guide nutrient and crop management.
- Development of **genome-edited crops** tolerant to drought, heat, salinity, and pests.
- **AI-driven analytics** that combine climate, soil, and crop data to provide location-specific advisories.

### Why Does India Need Climate Resilient Agriculture (CRA)?

**Ensuring Food Security-** India is an agricultural nation with a rapidly growing population. CRA ensures higher and more reliable farm productivity.

**Climatic Vulnerability of India's agricultural land-** 51% of India's net sown area is rainfed, and this land produces nearly 40% of the country's food. It makes these lands especially vulnerable to climate variability.

**Climate resilience constraint of Conventional Farming-** Conventional farming methods alone may not withstand the rising stresses of climate change. **For ex-** Recent modelling suggests that by the end of the century, **yields of staple crops like rice could fall by 3-22%**, and in worst-case scenarios by more than **30%**.

**Reduction of Reliance of imports-** CRA can reduce India's reliance on food imports and strengthen the country's strategic autonomy in the food sector.

**Enhanced productivity and Environmental Health-** Climate-resilient agriculture offers a suite of technologies that can enhance productivity while protecting environmental health.

**What is India's Status of Climate Resilient Agriculture (CRA)?**

<b>National Innovations in Climate Resilient Agriculture</b>	<p>It was launched by the <b>Indian Council of Agricultural Research (ICAR)</b> in 2011.</p> <p>It aims to enhance the resilience and adaptive capacity of farmers to climate variability, location-specific climate resilient technologies such as system of rice intensification, aerobic rice, direct seeding of rice, zero till wheat sowing, cultivation of climate resilient varieties tolerant to extreme weather conditions, in-situ incorporation of rice residues.</p>
<b>National Mission for Sustainable Agriculture</b>	<p>It has been formulated to enhance agricultural productivity, especially in rainfed areas, focusing on integrated farming, water use efficiency, soil health management, and synergising resource conservation.</p>
<b>BioE3 policy</b>	<p>BioE3 policy has positioned CRA as a key thematic area for the development of biotechnology-led solutions. Several technologies relevant to CRA have already been commercialised, especially biofertilizers, biopesticides, and microbial soil enhancers.</p>
<b>Expansion of digital agriculture sector</b>	<p>India's agritech startups are offering AI-enabled advisories, precision irrigation, crop-health monitoring, and yield prediction tools.</p>
<b>Institutional Support for CRA</b>	<p>India has a strong scientific capacity for CRA, supported by ICAR, DBT, IARI, and a growing private-sector biotechnology ecosystem.</p> <p>Several technologies relevant to CRA have already commercialised, especially biofertilizers, biopesticides, and microbial soil enhancers.</p>

**What is the progress of other countries in Climate resilient Agriculture (CRA)?**

<b>U.S.</b>	<p>The U.S. has integrated CRA into federal policy through the USDA Climate-Smart Agriculture and Forestry (CSAF) initiative, investing billions in climate-smart practices.</p>
<b>E.U.</b>	<p>CRA is embedded in the EU Green Deal and Farm to Fork Strategy, both aiming to reduce chemical inputs and enhance sustainability.</p>
<b>China</b>	<p>China's CRA strategy centres on climate-tolerant crop breeding, large-scale water-saving irrigation, and agricultural digitalisation.</p>
<b>Brazil</b>	<p>Brazil leads in tropical climate-resilient crop development, driven by EMBRAPA's biotechnology research.</p>

## What are the key challenges in the adoption of CRA in India?

Scaling CRA in India faces multiple constraints such as:

- **Low adoption** among small and marginal farmers due to limited access, awareness, and affordability.
- **Quality inconsistencies** in biofertilizers and biopesticides reduce farmer trust.
- **Slow rollout** of climate-resilient and genome-edited seeds.
- **Uneven state-wise adoption** of advanced technologies.
- **Digital divide** limits access to AI-based and precision agriculture tools.
- **Persistent soil degradation**, water scarcity, and accelerating climate volatility.
- **Fragmented policy coordination** across institutions.

## What should be the way forward for the adoption of CRA in India?

India's CRA transition must be accelerated and scaled by employing the following measures:

- Fast-track development and deployment of climate-tolerant and genome-edited crops.
- Strengthen quality standards, regulation, and supply chains for bio-inputs.
- Expand access to digital tools and climate advisories for smallholders.
- Provide financial incentives, climate insurance, and affordable credit.
- Ensure stronger coordination across ministries, states, and research bodies.

## Conclusion

Climate-resilient agriculture is essential for safeguarding India's food security in an era of climate uncertainty. A coherent national CRA roadmap under the BioE3 framework, aligning biotechnology, climate adaptation, and agricultural policy, is critical to delivering resilience at scale and ensuring sustainable food systems for the future.

Source: [The Hindu](#)

## India's AI Policy Needs to Get Global-Scale Ready

**UPSC Syllabus Topic: GS Paper 3** -Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology.

## Introduction

India's AI governance framework is gaining attention for its **responsible and inclusive approach**, built on **digital public infrastructure (DPI)** and **voluntary guardrails**, not heavy regulation. This has helped scale AI use across services. However, the core concern remains unresolved. India's policy support is still stronger for **AI deployment** than for **foundational AI creation**, which raises long-term issues of **sovereignty, resilience, and global competitiveness**.

## Current status of India's AI ecosystem

**1. Strong digital public infrastructure base:** India's digital public infrastructure gives AI developers a **rare structural advantage**. Platforms such as **Aadhaar, UPI, DigiLocker, Bhashini, and DEPA** allow fast scaling of **identity, payments, data sharing, and service delivery**. This **integrated national architecture** supports **real-world AI use at population scale**, which few countries can replicate.

**2. Rapid growth in AI adoption and industry size:** India's technology sector is projected to cross **USD 280 billion** in annual revenue. Over **6 million people** are employed in the tech and AI ecosystem. Around **87% of enterprises** actively use AI solutions, with strong adoption in **BFSI, healthcare, manufacturing, retail, and automotive** sectors.

**3. Expanding startup and developer ecosystem:** India hosts around **1.8 lakh startups**, and nearly **89% of new startups** launched last year used AI in their products or services. The country has **1,800+ Global Capability Centres**, including **500+ AI-focused centres**. India is also the **second-largest contributor** to AI projects on **GitHub**, showing strong developer participation.

**4. Global recognition and competitiveness:** India ranks among the **top four countries** in AI skills and policy readiness and stands **third globally** in AI competitiveness. This reflects **talent depth, research output, startup activity, and digital infrastructure**, but the strength remains **skewed towards deployment rather than core model building**.

#### Challenges and Concerns Related to Pillars of India's AI Strategy

**1. Foundational Gap:** While AI applications are growing, support for building core AI models remains limited. Most developers rely on fine-tuning existing open models instead of training original ones. This creates a gap between application strength and core technological ownership.

**2. Data Uncertainty:** There is no legal clarity on whether publicly available data can be used for AI training. The Copyright Act is not updated and there is no text-and-data mining exemption, so developers cannot be sure they are within legal limits.

**3. Liability Doubts:** The policy does not clearly define responsibility when AI systems cause harm. It is unclear whether liability lies with the developer, deployer, or platform. This uncertainty increases risk, especially for small firms and those working in finance or healthcare.

**4. Compute Bottleneck:** India has strong academic talent in AI, but researchers lack easy access to compute resources. The AIRAWAT initiative is promising but remains opaque. Access rules are unclear and approvals are slow, which limits experimentation and delays research progress.

For detailed information on **AI Supercomputer 'AIRAWAT'** [read this article here](#)

**5. Foreign Dependence:** Low domestic model building increases reliance on foreign models. This ties India to external licensing terms, design choices, and future support decisions, creating long-term dependency.

**6. Sovereignty Risk:** When public services and user experiences depend on systems built elsewhere, control reduces. This can weaken resilience and competitiveness over time.

#### Initiatives taken to strengthen India's AI strategy

**1. IndiaAI Mission:** The government launched the IndiaAI Mission in March 2024 with over ₹10,300 crore to build a strong indigenous AI ecosystem. It aims to democratise AI technology, improve data quality, and boost competitiveness.

**2. INDIAai National Portal:** INDIAai is India's national AI portal supporting knowledge sharing, research insights, industry news and resources to connect stakeholders across the ecosystem.

**3. AI Governance Guidelines:** Government has rolled out governance guidelines under IndiaAI that aim to make AI safe, inclusive and pro-innovation without heavy regulation that stifles growth.

**4. Centres of Excellence (CoEs):** The government set up **three CoEs in Healthcare, Agriculture, and Sustainable Cities**, and announced a **fourth CoE for Education in Budget 2025**, to support collaborative and scalable AI innovation.

**5. Sarvam AI and BharatGen Models:** Initiatives like Sarvam AI (for smarter public services) and BharatGen AI (multilingual, multimodal model) focus on homegrown capabilities that reflect India's linguistic and cultural diversity.

**6. AI Impact Summit 2026:** India will host the AI Impact Summit to showcase its AI capabilities, encourage innovation and build international collaborations.

#### What should be done?

**1. Legal clarity:** A targeted step is to confirm that training on publicly available data for AI research is legal in India. This would lower legal risk and unlock broader experimentation in academia and startups.

**2. Create predictable safe harbours:** Safe harbours, like those used for internet intermediaries, can protect developers from automatic liability for third-party misuse. Liability should be proportional, predictable, and linked to real control.

**3. Make AIRAWAT truly usable:** Publish clear access norms, create simple onboarding, and offer shared compute clusters with minimal approvals. Researchers and small firms should be able to start training jobs without long delays.

**4. Run regulator-backed sandboxes:** Structured sandboxes in sectors like finance and healthcare should be run with regulators and backed by legal guidance. This supports safe testing without informal or ad-hoc experimentation.

**5. Light certification:** A simple certification check for fairness, transparency, and robustness can create a clear incentive to build responsibly. If a model meets baseline tests, it should plug into DPI use cases by default.

#### 6. Learn from enabling states:

- The UAE launched **Falcon**, an open-source language model, with clear government backing and high visibility.
- Singapore is building rules that push **explainability** and give users a path for **redress**.
- The EU, even with stricter regulation, offers clearer certainty and **research carve-outs**.

- The US still gives developers room to build under a broad **fair use** approach.
- The shared lesson is simple: policy clarity and trust rules can enable builders, not just control them.

## Conclusion

India has a strong edge in AI deployment due to **DPI, talent, and market scale**. To become global-scale ready, it must close gaps in **core model building**, clarify **data legality**, ensure **predictable liability**, and make **AIRAWAT practically accessible**. These targeted steps can reduce dependency and position India as a **sovereign and trusted AI builder**.

## Question for Practice

Discuss the key strengths and main gaps in India's AI strategy that must be fixed to achieve global-scale AI capability.

Source: [Businessline](#)

## Transforming a Waste-Ridden Urban India

**UPSC Syllabus Topic: GS Paper 3 - Conservation, environmental pollution and degradation.**

### Introduction

Urban India is struggling with a growing waste crisis that affects health, climate, and the quality of city life. Rapid urban expansion, rising consumption, and weak waste systems have turned waste into a daily urban challenge. Waste is no longer only about cleanliness. It is linked with pollution, greenhouse gas emissions, resource loss, and water stress. Global climate discussions and national missions now recognise that cities must treat waste as a resource and adopt circular systems to secure a cleaner and healthier urban future.

### Current Status of Waste Management

**1. Very high daily waste generation:** Indian cities generate massive quantities of municipal solid waste every day. In 2021–22, average daily waste generation reached **170,338 tonnes per day**, showing the scale of the problem cities face.

**2. Large treatment deficit:** Out of the total waste generated, only about **91,512 tonnes per day** is formally treated. The remaining waste is dumped, landfilled, or left unmanaged, creating serious environmental risks.

**3. Rapid growth expected in future:** Urban waste generation is projected to rise sharply. Annual waste generation may reach **165 million tonnes by 2030** and could further rise to **436 million tonnes by 2050** as urban population increases to around **814 million**.

**4. Pollution-intensive urban living:** Many Indian cities, including the National Capital Region, rank among the world's most polluted. Waste burning, landfill emissions, and unprocessed garbage worsen air and water quality.

**5. Public dissatisfaction and limited impact:** Governments, regulators, and courts have intervened to address pollution and waste issues. However, the impact has been limited, and citizen grievance has continued to rise.

**6. Cleanliness drives with mixed results:** National cleanliness efforts have reduced open defecation and improved awareness. Yet, garbage-free cities remain difficult to achieve without systemic waste processing reforms.

### Reasons for the Growing Waste Crisis in India

**1. Rapid urban growth:** Expanding cities and towns are increasing waste loads very quickly. Urban systems have not scaled at the same pace.

**2. Consumerist lifestyle shift:** Society is becoming more consumption-oriented. Frequent product replacement and packaging increase waste generation.

**3. Weak segregation at source:** Household segregation of wet and dry waste is still inconsistent. Mixed waste reduces recycling and increases landfill emissions.

**4. Municipal capacity and finance gap:** Urban local bodies face serious resource shortages. Funds, staff, and technical capacity are not sufficient to manage growing waste volumes.

**5. Plastic-heavy dry waste:** More than one-third of city waste is dry waste, with plastic as the most problematic component. Plastic threatens ecosystems and human health.

**6. System gaps in circularity:** Collection, processing, aggregation, and distribution systems are not well integrated. This weakens recycling and recovery outcomes.

**7. Market and feasibility challenges:** Recycled products face quality concerns and weak market demand. Financial feasibility remains a challenge for circular waste enterprises.

**8. Weak accountability and enforcement:** Extended Producer Responsibility does not yet cover all dry waste categories. Construction waste tracking and enforcement remain weak.

### Challenges to Waste Management

**1. Dominance of landfill disposal:** Cities still depend heavily on dumpsites and landfills. This creates environmental, health, and safety risks.

**2. Plastic waste complexity:** Plastic waste is difficult to recycle without strict segregation. Low-value plastics often escape recovery systems.

**3. Construction and demolition waste dumping:** Cities generate around **12 million tonnes of construction and demolition waste annually**. Illegal dumping along roads and open spaces is common.

**4. Insufficient recycling capacity:** Recycling capacity is increasing but not fast enough to match rising construction and municipal waste generation.

**5. Wastewater management gaps:** Wastewater recycling remains limited. Poor used water and faecal sludge management weakens urban water security.

**6. Testing and monitoring shortfalls:** Facilities for testing recycled materials and monitoring compliance are inadequate. This affects quality and trust in recycled products.

**7. Poor inter-departmental coordination:** Multiple agencies are involved in waste management. Weak coordination reduces accountability and slows progress.

### Impacts of the Waste Crisis in India

**1. Public health damage:** Open dumping and burning of waste cause respiratory illness, water contamination, and disease spread.

**2. Methane and climate impact:** Decomposing organic waste emits methane, a powerful greenhouse gas. This worsens climate change impacts.

**3. Environmental degradation:** Landfills pollute soil and groundwater through leachate. Plastic waste harms ecosystems and biodiversity.

**4. Economic costs to cities:** Cities lose valuable materials and energy when waste is not processed. Cleanup and health costs increase municipal spending.

**5. Urban infrastructure pressure:** Landfills are reaching capacity. Waste transport and disposal strain urban infrastructure systems.

**6. Aesthetic and social decline:** Waste-ridden cities affect quality of life. Poor urban environments discourage investment and social well-being.

### Initiatives Taken for Waste Management

**1. Global climate focus on waste:** At COP30, waste was placed at the centre of the climate agenda. A global initiative, **No Organic Waste (NOW)**, was launched to cut methane emissions.

**2. National cleanliness mission:** The Swachh Bharat Mission aims to make cities clean and garbage-free. Under SBM Urban 2.0, around **1,100 cities** have been rated free of dumpsites.

**3. Swachh Survekshan performance push:** Cleanliness assessments have increased weightage for **source segregation** and for reducing waste inflow into dumpsites. This has made segregation and processing central to city performance measurement.

**4. Garbage Free Cities target:** The goal of achieving Garbage Free Cities by **2026** reflects the urgent need for sustainable waste systems.

**5. Organic waste solutions:** More than half of municipal waste is organic, so composting is promoted from household level to large bio-methanation plants. **Compressed Biogas (CBG) plants** are creating pathways to generate green fuel, and wet waste combustion can also yield power.

**6. Compressed biogas potential:** Compressed biogas plants enable the generation of green fuel and electricity from municipal wet waste.

**7. Circular economy push and regional city coalition:** India's initiative, **Cities Coalition for Circularity (C-3)**, was endorsed by Asia-Pacific nations in Jaipur. It supports sharing of knowledge and expertise among cities and institutions to improve circular solutions.

**8. Construction waste regulations:** The Construction and Demolition Waste Management Rules, 2016 provide a framework for accountability. New rules will take effect from **April 1, 2026**.

**8. Wastewater reuse under urban missions:** Urban missions such as **AMRUT** and **SBM** include used water and faecal sludge management as part of city water security. States are encouraged to recycle wastewater and reuse it in agriculture, horticulture, and industry.

### What Should Be Done

**1. Place waste at the centre of climate action:** Waste must be treated as a climate priority. Methane reduction and waste management should align with climate goals.

**2. Adopt circularity as the urban core:** Cities must move fully from linear waste systems to circular models where waste is treated as a resource.

**3. Scale Mission LiFE (Lifestyle for Environment) locally:** Mission LiFE promotes deliberate use over mindless consumption. Cities must embed this idea into daily urban life.

**4. Expand organic waste diversion:** Composting and bio-methanation must expand from households to city scale to cut landfill load and emissions.

**5. Strengthen dry waste recovery:** Material recovery facilities must expand alongside rising waste volumes. Recycling systems must be strengthened.

**6. Enforce construction waste accountability:** Bulk waste generators must be charged and monitored. Strict rule enforcement can reduce illegal dumping.

**7. Integrate wastewater into circular planning:** Recycling and reuse of wastewater must become routine to meet growing urban water demand.

**8. Fix governance and coordination gaps:** Clear accountability, better monitoring, and improved inter-departmental coordination are essential.

**9. Extend producer responsibility:** Extended Producer Responsibility must cover all dry waste categories with better tracking and enforcement.

**10. Support cities through cooperation:** Municipal resource shortages must be addressed. Platforms like the **Cities Coalition for Circularity** support knowledge sharing and collaboration.

**11. Make citizens active partners:** People must see clear value in recycling. Recycling supported by policy, technology, and markets can anchor circularity.

## Conclusion

Urban waste has become a defining challenge for India's cities. Rising volumes, weak systems, and climate risks demand urgent and coordinated action. Treating waste as a resource, strengthening circular systems, enforcing accountability, and engaging citizens can reverse current trends. Circularity is no longer optional. It is essential for clean cities, public health, climate stability, and sustainable urban growth.

## Question for practice:

Examine why India's fast-growing urban waste crisis demands a shift from linear dumping to a circular economy model, and how this can reduce pollution and emissions while moving towards Garbage Free Cities by 2026.

Source: [The Hindu](#)

## Recasting sanitation with urban-rural partnerships

**UPSC Syllabus Topic:** GS Paper 3 -Conservation, environmental pollution and degradation.

## Introduction

The Swachh Bharat Mission, launched in 2014, aimed to ensure toilet access for every household in India. Within a decade, over 12 crore toilets were built in rural areas, and all villages declared themselves Open Defecation Free. This marked a major public health and dignity gain. However, sanitation does not end with toilets. Managing the growing volume of human waste has emerged as the next critical challenge. Without safe systems for treatment and disposal, sanitation gains risk erosion. This challenge demands not only infrastructure solutions but also institutional coordination, labour protection, and social equity.

## Why Waste Management Matters

- 1. Toilets generate waste that must be managed:** Toilets are only the starting point of sanitation. Every toilet produces faecal waste that must be safely handled to protect health and the environment.
- 2. Reliance on septic tanks and pits:** In rural areas, septic tanks and pits are the main containment systems. These fill up over time and require desludging at regular intervals.
- 3. Risk of undermining ODF gains:** Without safe systems for collection, transport, and treatment, faecal waste is often handled by informal operators. Unsafe disposal can reverse the gains achieved under ODF.
- 4. Shift to ODF Plus under SBM-G Phase II:** This challenge led to Swachh Bharat Mission (Grameen) Phase II, with a focus on ODF Plus. The aim is to ensure sustainability, not just access.
- 5. Persistent gap in faecal sludge management:** ODF Plus covers solid and liquid waste management, behaviour change, and sanitation service chains. Despite progress, faecal sludge management remains the weakest link, especially in peri-urban and rural areas.

## Progress under ODF Plus

**1. Broad national coverage:** By October 2025, more than 5.68 lakh villages, nearly 97% of all villages, were declared ODF Plus. This reflects strong nationwide adoption.

**2. Uneven service delivery:** While toilet coverage is universal, access to safe desludging and treatment services remains uneven across regions.

**3. Need for system-level solutions:** The scale of the challenge shows that individual household solutions are insufficient. Area-wide and institutional approaches are required.

For detailed information on **Open Defecation Free (ODF)** [read this article here](#)

## Success Stories of Waste Management

### 1. State-Led Infrastructure Model: Maharashtra

- Maharashtra invested in **over 200** faecal sludge treatment plants in urban areas and promoted co-treatment in **41** sewage treatment plants.
- This strengthened city treatment capacity, but many surrounding villages remained outside the service network, showing the need to link treatment infrastructure with rural service delivery.

**2. Urban-Rural Partnership Model: Satara District:** Satara city's faecal sludge treatment plant (**65 KLD**) was operating below capacity. Four villages were connected to this facility through scheduled desludging every **five years**, delivered by a private provider engaged by gram panchayats. Costs are recovered through a modest sanitation tax, while a formal agreement allows authorised rural vehicles to treat sludge at the city plant at **no cost**, making the arrangement sustainable and mutually beneficial.

**3. Rural and Cluster Model: Mayani:** Mayani adopted scheduled desludging every **five to seven years**, managed by private operators or local self-help groups. It was also selected for a cluster-level treatment plant to serve **around 80** surrounding villages, improving viability through pooled demand.

## Social and Labour Dimensions of Waste Management

**1. Rapid waste growth with shrinking workforce:** Waste volumes have increased sharply over time, while the sanitation workforce has reduced by about 60%. This mismatch has deepened service gaps and worker stress.

**2. Informalization of sanitation labour:** Secure public sanitation jobs have declined. Many workers now operate under informal contracts with low pay, limited rights, and high occupational risk.

**3. Caste-linked concentration of hazardous work:** The informal waste economy remains dominated by Dalits and Adivasis. Social stigma and exclusion continue, especially in informal waste handling.

**4. Health risks and lack of dignity:** Sanitation work is dangerous and physically demanding. A large share of workers do not reach retirement age, highlighting severe health and safety failures.

**5. Marginal political focus on workers:** Despite sanitation missions, worker dignity and welfare remain low on the political agenda. Infrastructure gains have not translated into social protection.

## Impact of Weak Waste Management Systems

- 1. Public health and environmental damage:** Untreated faecal waste is dumped into lakes, rivers, drains, and dumpyards. This contaminates water sources and creates toxic living conditions.
- 2. Growth of unsafe informal practices:** Lack of treatment facilities forces reliance on illegal dumping and burning. These practices increase health risks for workers and nearby communities.
- 3. Economic inefficiency and governance strain:** Tax evasion and weak local finances limit system investment. Informal waste economies become indispensable but operate outside regulation.
- 4. Reinforcement of social inequality:** The poorest and most vulnerable groups bear the heaviest burden of unsafe waste work. Social mobility and access to safety nets remain limited.

## Way Forward

- 1. Institutionalising sanitation services:** Faecal sludge management must be treated as a regular public service rather than an occasional activity.
- 2. Strengthening urban-rural cooperation:** Shared use of treatment infrastructure can reduce costs and improve efficiency.
- 3. Scaling adaptable models:** Urban-rural linkage and cluster-based approaches can be expanded across regions based on local needs
- 4. Ensuring financial sustainability:** Sanitation taxes and formal service contracts can support long-term operations.
- 5. Upgrade technology, but customise scaling:** There is no shortage of technologies to detoxify and recycle human waste. The challenge is how to scale up for towns and scale down for outskirts without creating new gaps in operation and access.
- 6. Protect workers during technology and system shifts:** If upgraded systems reduce informal jobs, there must be plans for compensation and re-training. Workers should not lose livelihoods when sanitation systems become more formal or more mechanised.
- 7. Create secure, caste-neutral livelihood pathways:** Waste work remains caste-marked, especially in the informal economy. Breaking this requires modern jobs that are caste-neutral, along with opportunities for education, migration, and self-employment that workers value for independence.
- 8. Expanding private and community roles:** Private operators and self-help groups can improve service delivery under clear governance arrangements.

## Conclusion

Sustaining sanitation gains requires moving beyond toilet construction to managing waste safely, fairly, and systematically. Urban-rural partnerships and cluster-based treatment models address infrastructure gaps, but

social and labour realities cannot be ignored. Without protecting workers and strengthening institutions, sanitation systems remain fragile. The real success of Swachh Bharat lies in durable systems that protect health, preserve the environment, and uphold dignity for both users and workers.

### Question for practice

Discuss how urban–rural partnerships and faecal sludge management models are helping to sustain sanitation gains under the Swachh Bharat Mission in rural India.

Source: [The Hindu](#)

## India's Artificial Intelligence Journey

### Introduction

India is entering a new AI-driven development phase impacting healthcare, agriculture, education, governance, cities, and public services. Focus is on inclusive, affordable, and accessible AI, not limited to elite institutions. AI is positioned as a tool for societal upliftment and good governance, aligned with the vision of Viksit Bharat 2047.

### What is Artificial Intelligence?

- AI enables machines to learn, adapt, reason, and make decisions using data, algorithms, and models.
- Large Language Models (LLMs) allow human-like interaction through chatbots, translation, and assistants.
- AI improves over time through experience and data.

### What is the status of India's Current AI Ecosystem?

- Tech sector revenue: USD 280+ billion
- Employment: 6+ million in tech and AI
- 1,800+ Global Capability Centres, 500+ AI-focused
- 1.8 lakh startups, with around 89% using AI
- India scores 2.45/4 on NASSCOM AI Adoption Index
- Top AI-adopting sectors: BFSI, healthcare, manufacturing, retail
- India ranks among top 4 globally in AI skills and policies
- India is the second-largest contributor to AI projects on GitHub

### What is the Inclusive AI Vision as presented by the NITI Aayog Report, 2025?

AI can empower 490 million informal workers by improving access to:

- Healthcare
- Education and skilling
- Financial inclusion

Emphasis should be on bridging social and economic divides using technology. AI Technology should amplify human skills, not replace them.

## What is the India AI Mission? What are its main Pillars?

It was approved in March 2024 with a budget of ₹10,371.92 crore for 5 years. Its vision is “Making AI in India and Making AI Work for India”.

### 7 Seven Pillars of the IndiaAI Mission

- **Computing Pillar** – Affordable high-end GPU access
- **Application Development** – AI solutions for India-specific problems
- **AIKosh** – Dataset and model platform (5,500+ datasets)
- **Foundation Models** – Indigenous multimodal LLMs in Indian languages
- **Future Skills** – Fellowships, AI labs, Tier 2–3 city focus
- **Startup Financing** – Global expansion support
- **Safe & Trusted AI** – Ethics, bias mitigation, explainability, governance

### What are the Government's other key initiatives for AI?

- **BharatGen AI**- First government-funded multimodal LLM (22 languages)
- **Bhashini**- Language AI platform enabling digital inclusion
- **Sarvam AI**- Sovereign LLM ecosystem for governance (Aadhaar services)
- **AIKosh**- National AI dataset and model repository

### What is the use of AI in everyday life?

- **Healthcare**- Early diagnosis, telemedicine, ethical AI collaborations
- **Agriculture**- Weather prediction, pest surveillance, Kisan e-Mitra
- **Education & Skilling**- AI modules in CBSE, DIKSHA, YUVAi programmes
- **Governance & Justice**- e-Courts, AI-based translation, vernacular judgments
- **Climate & Weather**- IMD AI models, MausamGPT, cyclone forecasting
- **Employment**- AI creates new jobs and skills demand. AI workforce projected to reach 12.5 lakh by 2027. Programs like FutureSkills PRIME driving reskilling.

### What is the proposed Digital ShramSetu Mission?

Uses AI, IoT, blockchain for informal workers. It focuses on- Voice-first interfaces, Smart contracts and Micro-credentials. It is proposed to be rolled out in phases from 2025 to 2029. Its Goal is to make India attain global leadership in inclusive AI by 2035.

### Conclusion

India is building a robust, inclusive, and sovereign AI ecosystem. It has a strong focus on- Indigenous innovation, Responsible AI, Skill development and Public good applications. AI is a key enabler of economic growth, social equity, and governance reform. The above mentioned government initiatives lay the foundation for India's leadership in the global AI landscape and Viksit Bharat 2047 vision.

## Design Linked Incentive Scheme - Present and Future

**Source:** The post “Design Linked Incentive Scheme - Present and Future” has been created, based on “Design Linked Incentive Scheme” published in “PIB” on 05th January 2026.

**UPSC Syllabus:** GS Paper-3- Indian Economy

**Context:** Semiconductors are critical enablers of economic growth and national security in sectors such as defence, telecom, healthcare, space, and artificial intelligence. Semiconductor chip design contributes nearly 50 percent of value addition and accounts for 30–35 percent of global semiconductor revenues through the fabless segment. The Government of India launched the Design Linked Incentive (DLI) Scheme under the Semicon India Programme to build a self-reliant and globally competitive semiconductor design ecosystem.

### Rationale for the DLI Scheme

- Chip design determines the intelligence, performance, efficiency, and security of electronic products.
- Fabless semiconductor companies generate high value addition with relatively low capital expenditure compared to fabrication facilities.
- Without indigenous chip design capability, India remains dependent on imported semiconductor intellectual property despite local electronics manufacturing.
- Strengthening domestic design capability enables India to retain intellectual property, reduce imports, and attract global manufacturing investments.

### Objectives of the DLI Scheme

- The DLI Scheme aims to promote indigenous semiconductor design and intellectual property creation in India.
- The scheme seeks to strengthen India’s position in the global semiconductor value chain by supporting fabless companies.
- The scheme aims to reduce import dependence and enhance supply chain resilience in critical sectors.

### Eligibility under the DLI Scheme

- Start-ups recognised by the Department for Promotion of Industry and Internal Trade are eligible for incentives under the scheme.
- Micro, Small and Medium Enterprises defined under the MSME notification of 2020 are eligible for financial and infrastructure support.
- Domestic companies owned by resident Indian citizens are eligible for deployment-linked incentives.

### Financial Incentives under the DLI Scheme

#### Product Design Linked Incentive

- The scheme provides reimbursement of up to 50 percent of eligible expenditure incurred on semiconductor design.
- The maximum financial support under this component is capped at ₹15 crore per application.
- The incentive covers the design of integrated circuits, chipsets, systems-on-chip, systems, and IP cores.

#### Deployment Linked Incentive

- The scheme provides incentives ranging from 4 percent to 6 percent of net sales turnover for a period of five years.
- The maximum incentive under this component is capped at ₹30 crore per application.
- The design must be successfully deployed in electronic products to qualify for incentives.
- The minimum cumulative net sales requirement is ₹1 crore for start-ups and MSMEs and ₹5 crore for other domestic companies.

### Design Infrastructure Support

- The ChipIN Centre established by C-DAC provides centralized design infrastructure support under the DLI Scheme.
- Start-ups and MSMEs are provided remote access to advanced Electronic Design Automation tools through the National EDA Grid.
- The scheme provides access to a repository of semiconductor IP cores for SoC design activities.
- The scheme supports MPW prototyping for fabrication at global semiconductor foundries.
- Post-silicon validation, testing, and silicon bring-up support are provided to approved companies.

### Achievements of the DLI Scheme

- The DLI Scheme has supported 24 chip design projects in strategic sectors such as surveillance, telecom, defence, and IoT.
- Supported companies have completed 16 chip design tape-outs and fabricated six semiconductor chips.
- Ten patents have been filed by DLI-supported companies, strengthening India's semiconductor IP base.
- More than 140 reusable semiconductor IP cores have been developed under the scheme.
- Over 1,000 specialised engineers have been trained or engaged through DLI-supported projects.
- Ninety-five start-ups have accessed the national EDA Grid with cumulative usage exceeding 54 lakh design hours.
- Around one lakh engineers and students across 400 institutions have benefited from shared chip design infrastructure.

### Institutional Framework Supporting the DLI Scheme

- The **Ministry of Electronics and Information Technology** provides policy leadership and strategic direction to the semiconductor ecosystem.
- The **Semicon India Programme**, with an outlay of ₹76,000 crore, provides end-to-end support for design, fabrication, and productisation.
- The **Centre for Development of Advanced Computing** acts as the **nodal agency** for implementing the DLI Scheme.
- The **Chips to Startup Programme** supports capacity building by creating industry-ready manpower in semiconductor design.
- The **Microprocessor Development Programme** has enabled the development of indigenous processors such as SHAKTI, VEGA, and AJIT.

### Future Direction of the DLI Scheme

- The DLI Scheme is **transitioning from design validation to large-scale productisation and commercialization**.

- **Indigenous chip designs are expected to move toward volume manufacturing** and system-level integration.
- The scheme **will enable wider deployment of Indian-designed chips** in defence, telecom, AI, mobility, and space sectors.
- The DLI Scheme **will strengthen India's position as a global hub** for fabless semiconductor design.
- Deeper integration with domestic semiconductor manufacturing units will further **enhance value addition in India**.

#### Way Forward:

- Establish a **national semiconductor innovation fund** to support next-generation chip research and early-stage startups.
- Promote **industry-academia collaboration**, connecting research institutions with startups to accelerate prototype development and commercialization.
- Expand **global collaboration programs** for IP licensing, technology transfer, and joint R&D projects.
- Develop a **robust domestic supply chain for semiconductor materials, EDA tools, and foundry services** to reduce dependency on imports.
- Encourage the adoption of **open-source microprocessor architectures** and promote standardization for interoperability across sectors.
- Implement a **mentorship and incubation network** for start-ups to navigate regulatory, financial, and manufacturing challenges.
- Strengthen **market linkages** for DLI-supported designs, including facilitating pilot projects with government departments and public sector undertakings.

**Conclusion:** The Design Linked Incentive Scheme anchors India in the most strategic segment of the semiconductor value chain, namely chip design. The scheme reduces dependence on imported semiconductor IP and enhances technological self-reliance. By fostering innovation, skilled manpower, and globally competitive products, the DLI Scheme supports long-term economic growth and strategic autonomy.

**Question:** Examine the significance of the Design Linked Incentive (DLI) Scheme in strengthening India's semiconductor design ecosystem. Discuss its achievements, future direction, and the way forward.

### India's overlooked crisis: unsafe drinking water

**Source:** The post "**India's overlooked crisis: unsafe drinking water**" has been created, based on "**India's overlooked crisis: unsafe drinking water**" published in "**BusinessLine**" on 05th January 2026.

**UPSC Syllabus:** GS Paper-2- Governance

**Context:** India faces a recurring crisis of unsafe drinking water, which causes widespread illness and deaths across the country. Recent incidents, such as the Bhagirathpura tragedy in Indore, where contaminated water led to multiple deaths, highlight a persistent governance failure. Similar outbreaks have been reported in Mahisagar, Gujarat, Tiruvallur, Tamil Nadu, and Sambhalpur, Odisha, indicating that unsafe water is a **national, not local, problem**.

#### Scale of the Crisis

- Between 2005 and 2022, over **20.98 crore cases of major water-borne diseases** — including Acute Diarrhoeal Disease, Typhoid, Viral Hepatitis, and Cholera — were reported, causing more than **50,000 deaths**.
- According to NITI Aayog, nearly **2 lakh people die annually** in India due to inadequate access to safe water.
- India ranks **120th out of 122 countries** on the global Water Quality Index, with approximately **70 percent of water sources contaminated**.

### Economic and Social Impact

- Contaminated water leads to **lost workdays, higher medical expenses, and reduced labour productivity**.
- An estimated **37.7 million people are affected annually**, resulting in a loss of around **73 million working days**.
- The human and economic costs of unsafe water are closely linked and **affect national development and livelihoods**.

### Root Causes of Unsafe Drinking Water

- The main problem is not always the source of water but its **journey through aging and poorly maintained infrastructure**.
- In many cities, **sewage contaminates drinking water pipes**, often due to poor coordination between municipal departments, road authorities, and utility agencies.
- Lack of **accurate underground utility mapping** causes accidental damage to water and sewer pipelines, allowing contamination during pressure drops.
- Urban programmes like **AMRUT 2.0** focus more on laying new pipelines rather than **maintaining existing networks, safety protocols, and monitoring systems**.

### Governance and Institutional Challenges

- Municipal bodies often act as **provider, tester, and regulator** simultaneously, creating a **conflict of interest**.
- Absence of an **independent water regulator** prevents enforcement of standards and transparency of water quality data.
- Governance remains **reactive**, with interventions occurring only after outbreaks, rather than through **preventive measures**.

### Way Forward

- There is a need for **better underground utility mapping** to prevent contamination from construction and pipeline damage.
- An **independent water regulator** should separate service provision from auditing and enforcement.
- Urban water programmes should shift from **coverage targets to “water safety at the tap”**, ensuring the quality of water delivered to households.
- Continuous monitoring, transparent reporting, and preventive governance mechanisms should be **prioritized over reactive emergency responses**.
- Safe drinking water should be treated as a **Constitutional obligation and foundational economic necessity**, not merely a welfare measure.

## Conclusion

Unsafe drinking water is a **recurring public health and economic crisis** in India. Effective solutions require a combination of **preventive governance, independent regulation, accurate utility mapping, and robust monitoring**. Addressing these issues can save lives, improve productivity, and ensure India meets its **constitutional and developmental commitments**.

**Question:** Examine the challenges in providing safe drinking water in India. Suggest measures to ensure water quality at the tap.

## Security camps, the game-changer in the Maoist fight

**UPSC Syllabus Topic:** GS Paper 3 -internal security

### Introduction

Maoism in India has witnessed a sharp decline in recent years, with violence now confined to limited pockets of south Bastar in Chhattisgarh. This transformation is not accidental. It is closely linked to the expansion of security camps in remote and previously inaccessible areas. These camps have altered the security, governance, and development landscape, weakening Maoist influence and restoring the presence of the state.

### Current status of Maoism in India

- 1. Decline in violence:** Maoist-related violence declined by nearly 90% between 2010 and 2025, showing a sustained and not cyclical downturn.
- 2. Reduction in affected districts:** LWE-affected districts fell from 126 in 2018 to just 11 by October 2025, indicating near-territorial collapse.
- 3. Geographical confinement:** Maoist activity is now limited mainly to south Bastar, reflecting loss of influence across the Red Corridor.
- 4. Most affected districts:** Only Bijapur, Narayanpur, and Sukma remain most affected, highlighting the shrinking core area.

### Reasons behind Maoist expansion

- 1. Strategic relocation to Dandakaranya:** Pressure in Andhra Pradesh pushed Maoists into DKR, whose forests and inter-State borders offered protection and mobility.
- 2. Administrative neglect:** Remoteness and weak state presence created governance vacuums, which Maoists systematically exploited.
- 3. Governance deficit as enabler:** Absence of justice, welfare, and administration enabled Maoists to establish parallel authority, not ideology alone.
- 4. Tribal alienation:** Dispossession from land and forests weakened trust in the state, making Maoist promises attractive.
- 5. Failure of Fifth Schedule protections:** Constitutional safeguards existed but were poorly enforced, rendering them ineffective on the ground.
- 6. Weak representation:** Outsider-dominated administration deepened alienation, limiting tribal participation in governance.

### Security-led turnaround and decline of Maoism

- 1. Expansion of security footprint:** Security camps placed permanent forces inside remote Maoist areas, ending their uncontested control.
- 2. Improved police–population ratio:** Higher force density deterred Maoists from operating with impunity, reducing open movement and coercion.
- 3. Faster reaction time:** Emergency response time dropped sharply, pushing Maoists into a defensive position.
- 4. Psychological setback to Maoists:** Visible security dominance convinced locals that the state, not Maoists, holds real power, weakening Maoist legitimacy.
- 5. Improved human intelligence (HUMINT):** Local confidence in forces improved intelligence flow, directly degrading Maoist planning and survival.
- 6. Infrastructure and civil administration piggybacking:** Roads, mobile towers, and entry of collectors, tehsildars, and patwaris followed camps, converting security gains into governance presence.

#### Emerging challenges in the post-conflict phase

- 1. Rights-based assertion:** With violence declining, tribal communities are raising constitutional and land rights claims, shifting the conflict from arms to governance.
- 2. Democratic repositioning of ex-cadres:** Surrendered Maoist leaders now seek democratic means, creating pressure for fair political engagement.
- 3. Weak justice delivery:** Courts, policing, and grievance redressal remain thin, risking return to informal or parallel justice systems.
- 4. Fragile social services:** Health and education systems remain inadequate, limiting trust despite improved security.
- 5. Governance deficit persistence:** Development expanded faster than governance reform, creating uneven state presence.
- 6. Under-representation of locals:** Administration remains outsider-dominated, sustaining alienation and low institutional trust.
- 7. Risk of post-security vacuum:** Without governance consolidation, security gains may not translate into durable peace, risking relapse.

#### Way forward

- 1. Implement constitutional safeguards:** Strict enforcement of PESA and the Forest Rights Act is essential to address long-standing tribal grievances.
- 2. Rebuild governance from scratch:** Civil administration must be established in areas that earlier had minimal state presence, ensuring routine governance.
- 3. Strengthen justice institutions:** Courts, policing, and grievance mechanisms must reach remote regions to prevent return to parallel justice.
- 4. Correct representation imbalance:** Reducing outsider dominance in administration is vital to rebuild trust among adivasis.

**5. Restore real self-governance: Gram Sabhas need autonomy and financial power**, not symbolic participation.

**6. Learn from Sixth Schedule regions: Autonomous council models offer lessons** for deeper tribal self-rule.

**7. Plan for long-term peace: A task force with a 2047 vision can convert security success into sustainable governance outcomes.**

### Conclusion

Security camps have **structurally weakened Maoism** by restoring state presence, confidence, and access in remote tribal regions. **Data shows near-territorial collapse**, but peace will last only if governance failures are corrected. **Implementing constitutional safeguards, strengthening representation, and rebuilding justice and service delivery systems** are essential to prevent relapse.

### Question for practice:

Examine how the expansion of security camps has contributed to the decline of Maoism in India and discuss the governance challenges that must be addressed to ensure durable peace.

Source: [The Hindu](#)

## The struggle to count women's labour

**UPSC Syllabus Topic: GS Paper 3** -Inclusive Growth, GS 1 Women empowerment, GS 2 Vulnerable sections of the society.

### Introduction

Women's labour remains deeply undervalued because large parts of their work are unpaid, invisible, and excluded from economic measures. Across societies, women spend more time than men on unpaid care, domestic, emotional, and mental labour. This work sustains families, communities, and economies, yet it is rarely counted as productive labour. The struggle lies not only in measurement, but in recognition, valuation, and policy response

### Current status of India's women workforce

**1. Female labour force participation trend:** India's female labour force participation rate fell from 31.2% in 2011–12 to 23.3% in 2017–18, then rose sharply to 41.7% in 2023–24.

**2. Misleading signal of progress:** The rise in participation does not indicate better jobs, as women continue to face poor earnings and insecure employment.

**3. Decline in real earnings:** Real earnings declined for women in all worker categories except casual labour, in both rural and urban areas.

**4. Rural women driving participation:** The increase in participation is largely due to rural women, not urban employment expansion.

**5. Growing dependence on agriculture:** The share of rural women in agriculture increased from 71.1% in 2018–19 to 76.9% in 2023–24.

**5. Shrinking non-farm opportunities:** Women's participation in industry and services declined, showing limited structural transformation.

**6. Unpaid work hidden in statistics:** A large share of women are recorded under unpaid household work, which is excluded from employment counts.

**7. Helpers in household enterprises:** Many women are classified as helpers in family enterprises, which is unpaid and treated as employment.

**8. Shift from domestic duties:** Women reporting domestic duties fell from 57.8% in 2017–18 to 35.7% in 2023–24.

#### Concerns and challenges related to women's unpaid labour

**1. Exclusion from employment definition:** Unpaid domestic and care work is not recognised as employment in official labour statistics.

**2. Blurring of work boundaries:** In rural households, domestic labour overlaps with farm and enterprise work, making women's labour invisible.

**3. Emotional and mental labour ignored:** Relationship management, emotional support, and family coordination are critical but unmeasured forms of labour.

**4. Unpaid care sustains productivity:** This labour enables others to engage in paid work, yet receives no economic recognition.

**5. Self-employment without security:** Movement from domestic work to household enterprises increases workload without improving income.

**6. Double work burden:** Women combine unpaid household labour with paid or semi-paid work, increasing time poverty.

**7. Falling returns to labour:** Rising participation is accompanied by declining real wages, increasing vulnerability.

**8. Gendered classification bias:** Categories such as “helpers” mask unpaid family labour under the appearance of employment.

#### Concerns and challenges related to women's unpaid labour

**1. Exclusion from employment statistics:** Unpaid domestic and care work is not counted as employment, despite its economic importance.

2. **Blurring of work roles:** Domestic work and household enterprise work overlap, especially in rural areas, making women's labour invisible.
3. **Neglect of emotional and mental labour:** Relationship management, emotional support, and household coordination remain unmeasured.
4. **Unpaid work sustains productivity:** Women's unpaid labour enables others to engage in paid work without being recognised.
5. **Rising workload without income:** Movement into self-employment increases work burden without improving earnings.
6. **Double burden on women:** Women combine unpaid care with paid or semi-paid work, increasing time poverty.
7. **Falling returns to labour:** Increased participation coincides with declining real wages and rising vulnerability.
8. **Gender-biased labour categories:** Terms like "helpers" mask unpaid family labour under the appearance of employment.

#### Reasons why women's labour remains unrecognised

1. **Male breadwinner bias:** Economic systems privilege paid work traditionally done by men and undervalue care work.
2. **GDP-focused development:** Growth strategies prioritise output and infrastructure while ignoring social reproduction.
3. **Neglect of care infrastructure:** Public spending favours physical infrastructure over childcare, elder care, and mental health services.
4. **Production-reproduction divide:** Labour that produces goods is valued, while labour that sustains workers is ignored.
5. **Naturalisation of gender roles:** Biological differences are used to justify unequal labour divisions and hide power relations.
6. **Historical subordination:** Women's labour is treated as non-productive due to entrenched social hierarchies.
7. **Absence of emotional labour recognition:** No law or policy acknowledges emotional and mental labour performed by women.

#### Impact of non-recognition of women's labour

1. **Economic undervaluation:** Excluding unpaid labour distorts measures of productivity and national income.

2. **Policy neglect:** Lack of recognition leads to weak investment in care-related services and support systems.
3. **Restricted labour market access:** Heavy unpaid responsibilities limit women's access to secure and paid employment.
4. **Feminisation of vulnerability:** Poor and marginalised women bear the greatest unpaid care burden.
5. **Income inequality:** Women's indirect contributions are ignored in wage setting and earnings distribution.
6. **Asset and property exclusion:** Unpaid labour weakens women's claims over family wealth and assets.
7. **Workplace exploitation:** Women face wage gaps, unsafe conditions, discrimination, and fear of retaliation.
8. **Persistent gender gap:** India ranked 31st in the Global Gender Gap Index 2025, reflecting deep inequalities.

### Way forward

1. **Legal recognition of unpaid work:** Unpaid care and domestic labour must be formally recognised as economic activity.
2. **Learning from global practices:** Bolivia legally recognises unpaid home work and provides social security, Trinidad and Tobago mandates statistical valuation of unpaid care work, while Argentina grants pension credits for unpaid childcare.
3. **Judicial acknowledgement in India:** In 2023, the Madras High Court held that a wife's household and caregiving work indirectly contributes to family assets, entitling her to an equal share.
4. **Policy inclusion:** National budgets and labour policies must account for unpaid and care labour.
5. **Redistribution of care responsibilities:** Men must actively share care work to reduce gendered burdens.
6. **Strengthening social services:** Investment in childcare, elder care, sanitation, and health reduces unpaid workloads.
7. **Workplace dignity and safety:** Equal pay, safe conditions, sanitation facilities, and law enforcement are essential.

### Conclusion

Women's labour sustains families, economies, and societies, yet remains systematically undervalued. Rising participation without income security exposes deep labour market weaknesses. Recognition must extend beyond employment numbers to unpaid, emotional, and care work. Legal reform, social investment, and shared care responsibilities are essential to correct this long-standing gender injustice.

For detailed information on **Female Labour Force Participation Rate** [read this article here](#)

### Question for practice

Discuss why women's unpaid, care, and emotional labour remains unrecognised in economic systems and examine its impact on women's work participation and income outcomes in India.

Source: [The Hindu](#)

### After Maduro, the Future Way for Delhi

**Source:** The post "After Maduro, the Future Way for Delhi" has been created, based on "C Raja Mohan writes: On Maduro, there's a reason for Delhi's restraint — and a window of opportunity in the region" published in "Indian Express" on 06th January 2026.

**UPSC Syllabus:** GS Paper-2- International Relations

**Context:** The capture of Venezuelan President Nicolás Maduro by the United States marks a dramatic intervention in Latin American politics. India's restrained response reflects a shift from ideological posturing to strategic realism, even as the episode opens a window for India to recalibrate its engagement with Latin America.

#### Reasons for India's Restraint on the Maduro Episode

1. India avoided strong condemnation because it no longer assumes that international law can effectively restrain the actions of major powers.
2. India has demonstrated similar restraint during Russia's invasion of Ukraine and US-Israeli strikes on Iran, indicating a consistent foreign policy approach.
3. India speaks most forcefully on violations of sovereignty only when its own territorial interests are involved, particularly in the case of China.
4. Venezuela is geographically distant and does not directly affect India's core strategic or security interests.
5. India has limited economic and political stakes in Latin America, which reduces the incentive for diplomatic activism.
6. The United States remains India's most important strategic partner, making overt criticism diplomatically counterproductive.
7. India does not share China and Russia's objective of challenging US dominance in the Western Hemisphere.
8. Latin American opinion itself is divided, with conservative parties supporting Maduro's removal while leftist leaders condemning it.

#### Geopolitical Implications of a Post-Maduro Venezuela

1. A strategic reorientation of Venezuela would reinforce American dominance in Latin America.
2. It would accelerate the continent's rightward political drift after decades of left-wing populism.
3. It would weaken the influence of Cuba, Russia, China, and Iran, which used Venezuela as a hub of anti-American activity.
4. The US strategy indicates a shift from regime change to co-opting existing power structures through negotiation.

#### Why Latin America Has Gained Importance for India

1. The imposition of Trump-era tariffs has compelled India to diversify its export markets beyond traditional partners.
2. Latin America has a combined GDP of around \$5.5 trillion and a population exceeding 650 million, making it a major economic region.
3. India's annual trade with Latin America remains low at about \$45 billion, highlighting untapped potential.
4. China's trade with the region stands at nearly \$500 billion, demonstrating the scale of opportunity India has missed.
5. As the US pressures Latin American states to reduce dependence on China, many countries will seek diversified partnerships.
6. India is well-placed to emerge as an alternative economic partner in sectors such as pharmaceuticals, IT, energy, and manufacturing.

### India's Historical Neglect of Latin America

1. India's engagement with Latin America has remained largely symbolic rather than strategic.
2. Cultural associations with figures like Fidel Castro and Che Guevara did not translate into concrete policies.
3. High-level political visits from India to Latin America have been infrequent.
4. India's commercial diplomacy and institutional presence in the region remain weak.
5. There is limited political and economic literacy about Latin America among Indian elites.

### Way Forward for India

1. India must give sustained political attention to Latin America through regular high-level engagements.
2. India should pursue targeted trade diplomacy to expand exports and investments in the region.
3. India must strengthen its diplomatic and institutional presence across Latin American countries.
4. India should formulate an independent regional strategy rather than merely aligning with BRICS partners.
5. India needs a deeper understanding of Latin America's political, economic, and social realities.

**Conclusion:** India's restraint on the Maduro issue reflects strategic maturity, but continued neglect of Latin America would limit India's global influence. As South America undergoes political and geopolitical transformation, India must deepen and widen its footprint through purposeful diplomacy and economic engagement.

**Question:** Discuss the changing geopolitics of Latin America and its implications for India's foreign policy.

**Source:** [Indian Express](#)

### The debate over economic data

**Source:** The post "The debate over economic data" has been created, based on "The debate over economic data" published in "BusinessLine" on 06th January 2026.

**UPSC Syllabus:** GS Paper-3- Indian Economy

**Context:** The debate over India's GDP and employment data has intensified following methodological changes such as the 2011–12 base revision and the adoption of higher-frequency surveys. While criticisms have grown louder, many fail to account for the complexity of economic measurement in a large, diverse, and rapidly transforming economy.

### **Nature of Criticisms of India's Economic Data**

1. Critics of India's national accounts fall into four broad categories based on the nature of their objections.
2. The first category resists methodological change due to concerns over loss of familiarity and historical comparability.
3. The second category selectively uses data to support preconceived narratives about economic performance.
4. The third category alleges systematic bias and imputes political motives to statistical agencies.
5. The fourth category recognises measurement challenges and offers feasible and constructive suggestions.
6. Only the fourth category of criticism contributes meaningfully to improving data quality.

### **Status Quo Bias and Resistance to Change**

1. Resistance to methodological change often arises from professional comfort with older systems.
2. Economic evolution makes periodic updates in statistical methods unavoidable.
3. India's shift to the UN System of National Accounts 2008 required moving from factory-based to enterprise-based measurement.
4. This involved replacing a limited RBI firm sample with the much broader MCA-21 database.
5. Although concerns were raised about dummy firms, statutory filings and data cleaning improved the database over time.
6. A small and unrepresentative sample cannot capture the realities of an economy with millions of active firms.

### **Changes in Employment and Consumption Measurement**

1. The transition from five-yearly employment surveys to the quarterly Periodic Labour Force Survey was criticised for reducing depth.
2. However, higher-frequency labour data is essential for timely macroeconomic decision-making.
3. Over time, the PLFS has allowed more detailed analysis and proved more reliable than private estimates.
4. Similar criticism followed improvements in consumer expenditure surveys due to reduced backward comparability.
5. Repeated surveys were conducted to verify and benchmark results, improving reliability.

### **Selective Use of Data and Misinterpretation**

1. GDP measurement is inherently complex, especially in a heterogeneous economy like India.
2. Data limitations are often highlighted selectively when growth exceeds forecasts.
3. Factors that may cause overestimation in one period can cause underestimation in another, but only the former is emphasised.
4. Forecast models cannot replace comprehensive national accounting exercises.

### Technical Critiques and Their Limitations

1. The absence of double deflation was criticised for overstating growth when WPI inflation was below CPI inflation.
2. During 2021 and 2022, WPI inflation exceeded CPI inflation, implying growth was underestimated.
3. The slowdown in credit growth during the 2010s was used to question GDP estimates without accounting for rising NPAs.
4. Structural shifts from corporate to retail credit were also ignored.
5. Positive discrepancies in expenditure estimates were highlighted while negative discrepancies were overlooked.

### GDP, GVA, and Deflator-Based Arguments

1. High net taxes in Q3 FY24 were cited to argue that GDP growth was inflated relative to GVA growth.
2. In subsequent quarters, net taxes declined while both GDP and GVA growth remained strong.
3. Critics later attributed high real growth to low deflators, suggesting inflation was underestimated.
4. If inflation were indeed underestimated, nominal GDP growth would have appeared weaker, which did not occur.
5. The IMF's grading weakened overestimation claims, as inflation measurement received a higher score.

### Informal Sector and Discrepancies

1. Concerns were raised that informal sector output is overstated using formal sector ratios.
2. Since 2011–12, labour skill-weighted estimates have replaced uniform productivity assumptions.
3. The production approach remains the controlling estimate, while expenditure estimates act as cross-checks.
4. Commodity flow methods capture informal sector consumption.
5. Persistent negative discrepancies indicate possible underestimation rather than overestimation of output.

### Ongoing Reforms and Improvements

1. Constructive criticisms have led to ongoing reforms in data compilation.
2. These include rebasing GDP to a more recent year and expanding survey frequency.
3. Double deflation is being introduced where disaggregated price indices are available.
4. Regular ASUSE surveys will replace proxy-based estimates in services.
5. Reform proposals are communicated transparently and stakeholder feedback is encouraged.

### Way Forward

1. India should ensure timely and regular rebasing of national accounts to reflect structural changes in the economy.
2. The coverage, frequency, and integration of surveys should be expanded to improve real-time economic assessment.
3. Greater use of administrative and big data sources should be made while ensuring data quality and privacy safeguards.
4. Capacity building within statistical institutions should be prioritised to handle complex estimation challenges.

5. Methodological changes and revisions should be communicated clearly to improve public understanding and trust.
6. Independent peer review mechanisms should be strengthened to enhance credibility without politicising statistics.
7. Constructive engagement with international institutions should continue while contextual challenges of emerging economies are recognised.

## Conclusion

India's economic data systems are evolving to match the scale and complexity of its economy. While methodological improvements may reduce comparability in the short term, they enhance accuracy and relevance over time. Strengthening statistical credibility requires technical refinement and institutional support, not selective criticism or politicisation.

**Question:** India's GDP measurement faces challenges due to the size and heterogeneity of its economy. Analyse the measures adopted to improve accuracy and reliability.

**Source:** [The Businessline](#)

## India-US Parallel tracks which are propelling the Relation Forward

### Introduction

In 2025, India-U.S. relations face visible political strain, including U.S. trade sanctions on India and closer U.S. engagement with Pakistan. The postponement of the Quad Leaders' Summit hosted by India highlights diplomatic unease.

Despite these challenges, the foundational cooperation between the two countries remains intact and forward-moving. High-level visits by India's External Affairs Minister and Navy Chief to the U.S. signal continued engagement beneath the political surface.

### Trade Tensions and Shifting Economic Alignments in Indo US Relations

- India's exports to the U.S. fell sharply in 2025, reflecting deteriorating trade relations. U.S. tariffs on Indian goods and penalties linked to India's purchase of Russian crude have exacerbated economic frictions.
- In contrast, China and Pakistan benefit from relatively lower tariffs and strengthened U.S. ties. Pakistan's economic concessions, including port access and critical mineral supplies, underline Washington's pragmatic, interest-based approach.

### Quad Delays but Remains Operationally Relevant

The delay of the Quad Leaders' Summit reflects bilateral and geopolitical tensions, including perceptions of a U.S.-China "G-2" style rapprochement. However, Quad cooperation continues at the working level.

The July 2025 Quad Foreign Ministers' Meeting in Washington launched initiatives across maritime security, counterterrorism, critical technologies, and humanitarian assistance. The Quad Counterterrorism Working Group meeting in December 2025 reaffirmed the grouping's functional relevance beyond summit diplomacy.

### The parallel tracks that keep the U.S.-India ties going

#### 1. Defence Cooperation as the Backbone

- Defence and security cooperation remain the most resilient pillar of India–U.S. relations.
- A decade-long Defence Framework Agreement signed in October 2025 strengthens coordination, information sharing, and technological collaboration.
- Regular joint military exercises—**Yudh Abhyas**, **Tiger Claw**, and **Malabar**—continue to enhance interoperability and trust between armed forces.
- Defence ties are framed as central to maintaining **Indo-Pacific stability** and deterrence.

#### 2. Institutionalised Defence and Technology Frameworks

- Since the 2008 civil nuclear deal, defence and technology agreements have steadily deepened bilateral ties.
- Key agreements include **LEMOA (2016)**, **COMCASA (2018)**, **BECA (2020)**, **INDUS-X (2023)**, and the **Initiative on Critical and Emerging Technologies (2023)**.
- The 2024 **Security of Supply Arrangement (SOSA)** further institutionalised defence logistics and industrial cooperation.
- These frameworks ensure continuity even during periods of political friction.

#### 3. Expanding Technological and Industrial Collaboration

- **Hindustan Aeronautics Limited's** billion-dollar fighter jet engine deal with General Electric in November 2025 marks a major industrial milestone.
- The joint NASA-ISRO NISAR satellite, launched in July 2025, strengthens cooperation in disaster management, agriculture, and infrastructure planning.
- These projects demonstrate the growing depth of high-technology collaboration beyond defence.

#### Dual-Track Indo-US Relationship- Politics vs Institutions

- The India–U.S. partnership operates on a dual-track model- fluctuating political diplomacy alongside stable institutional cooperation.
- Bureaucratic and defence institutions continue collaboration despite leadership-level or trade-related tensions.
- While regulatory hurdles and technology interoperability issues remain, shared regional interests sustain momentum.

#### The Way Forward for Deepening Indo-US Institutional Understanding

- Looking toward 2026, deeper institutional engagement in the Indo-US relationship- across defence and non-defence sectors- is essential.
- Building understanding of each other's systems, processes, and institutions can strengthen trust.

- The long-term resilience of India–U.S. relations depends on these institutional channels, which quietly preserve strategic relevance despite political headwinds.

Source: [The Hindu](#)

### **A central law to protect Amaravati**

**Source:** The post “A central law to protect Amaravati” has been created, based on “A central law to protect Amaravati” published in “The Hindu” on 07th January 2026.

**UPSC Syllabus:** GS Paper-2- Governance

**Context:** Amaravati, envisioned as the greenfield capital of Andhra Pradesh was declared the state capital under the Andhra Pradesh Reorganisation Act (APRA), 2014, following the bifurcation of the state. The city was planned to be a modern, well-designed administrative and economic hub, but its progress has been hampered by political instability, policy reversals, and legal disputes over the years. These issues highlight the urgent need for a central law to provide Amaravati with legal protection and ensure continuity of its development.

#### **Challenges:**

1. Political instability has posed a major challenge, as successive governments have had conflicting visions for the capital, including proposals to split the capital into three cities, which stalled Amaravati’s growth.
2. Legal ambiguities exist regarding whether Amaravati’s status should be recognized from 2014, when APRA came into force, or from the present date, creating uncertainty for governance and planning.
3. Financial losses have been incurred due to stalled projects and policy reversals, which discourages further investment in the city’s infrastructure.
4. Regional equity concerns have also emerged, with districts like Rayalaseema and the north coastal region fearing neglect if Amaravati is developed extensively without inclusive planning.
5. Farmers’ protests and ongoing litigation regarding land acquisition and project implementation have further delayed the city’s progress.

#### **Need for a Central Law:**

1. A central law would provide Amaravati with formal legal sanctity and clearly designate it as the capital of Andhra Pradesh.
2. It would prevent political interference by ensuring that successive state governments cannot arbitrarily change the status of the capital.
3. Such legislation would safeguard public investment and guarantee continuity of ongoing infrastructure and administrative projects.
4. Legal recognition would remove administrative ambiguity and provide clarity for planning, governance, and future development.
5. It would also protect the interests of farmers, citizens, and investors by creating a secure and stable framework for the city’s development.

#### **Way Forward:**

1. The Andhra Pradesh Reorganisation Act, 2014, particularly Section 5(2), should be amended to legally fortify Amaravati as the official state capital.
2. Stakeholder consultations must be conducted with farmers, regional representatives, civil society, and urban planners to prevent conflicts and ensure inclusive development.
3. Infrastructure and government projects should be resumed in a phased and transparent manner to make optimal use of resources.
4. Strong coordination between the Central and State governments is necessary for funding, monitoring, and implementing development projects.
5. Legal safeguards should be incorporated in the legislation to prevent any future state government from unilaterally altering the status or structure of the capital.

**Conclusion:** A central law is crucial to protect Amaravati from political, legal, and financial uncertainties, ensuring its status as the state capital is permanent and secure. With proper legal backing, inclusive planning, and phased development, Amaravati can fulfill its vision as a modern, planned capital and contribute significantly to Andhra Pradesh's administrative efficiency, economic growth, and regional balance.

**Question:** Examine the challenges faced in the development of Amaravati as the capital of Andhra Pradesh and analyze the need for legal safeguards to ensure its continuity.

Source - [The Hindu](#)

### Water budgeting: An innovative approach

**Source:** The post "Water budgeting: An innovative approach" has been created, based on "Water budgeting: An innovative approach" published in "BusinessLine" on 07th January 2026.

**UPSC Syllabus:** GS Paper-3- Environment

**Context:** Water budgeting is a scientific and participatory approach to managing water resources by estimating availability, supply, demand, and consumption at multiple levels – State, district, Gram Panchayat (GP), and village. It ensures efficient allocation of water across sectors such as agriculture, domestic use, industry, livestock, and the environment, promoting **climate resilience** and **sustainable development**. In India, water budgeting has been implemented under schemes like **Atal Bhujal Yojna (2019)** and the **National Water Mission (2018)**. Recently, NITI Aayog piloted water budgeting in **18 Aspirational Blocks (2025)** using the 'Varuni App', integrating spatial and non-spatial data for precise assessment.

#### Need for Water Budgeting:

1. India's **per capita water availability** has dropped from **5177 m<sup>3</sup> in 1951 to 1545 m<sup>3</sup> in 2011**, and the number of over-exploited groundwater blocks rose from **839 in 2004 to 1034 in 2014**.
2. **Excessive groundwater extraction**, shrinking rivers, pollution, and erratic rainfall due to climate change have aggravated water scarcity.
3. Future projections suggest that by 2030, India's **water demand (1.5 trillion m<sup>3</sup>)** may far exceed its current supply (**740 billion m<sup>3</sup>**), affecting agriculture, industry, and livelihoods.
4. Water budgeting allows identification of **water surplus and deficit areas**, optimizes resource allocation, and supports planning for **infrastructure, irrigation efficiency, and water conservation measures**.

### Methodology:

1. Water sources assessed include **rainfall, glaciers, rivers, springs, tanks, wetlands, groundwater, coastal water, and wastewater**.
2. Demand is calculated for **domestic, agricultural, livestock, industrial, tourism, and ecological needs**.
3. Tools like the **Varuni App** use advanced data analytics and remote sensing to generate block-level water budgets.
4. Blocks are categorized based on **geography and climate**, including coastal, arid, semi-arid, plateau, Himalayan cold desert, and reservoir-dominated regions.

### Challenges:

1. **Data gaps** at local levels make accurate water budgeting difficult.
2. **Limited technical capacity** among local bodies and Gram Panchayats hampers adoption of tools like the Varuni App.
3. **Stakeholder coordination** among farmers, industries, local communities, and policymakers remains a challenge.
4. **Infrastructure deficiencies**, such as insufficient groundwater recharge and surface water storage, restrict effective implementation.
5. Integration of water budgeting into **Central and State Water Policies** is still incomplete, delaying systematic adoption.

### Way Forward:

1. Expand water budgeting from pilot blocks to **village, GP, district, and State levels**, with public access to data for transparency.
2. Conduct **capacity-building programs** for local officials and community members to utilize digital tools efficiently.
3. Encourage **participatory decision-making** to align policies with local needs and ensure equitable water distribution.
4. Promote **efficient use of water** by maximizing rainwater harvesting, surface water utilization, and minimizing groundwater dependence.
5. Incorporate water budgeting into **central and state water policies** with a **time-bound action plan** to ensure nationwide implementation.

**Conclusion:** Water budgeting is essential for India to meet its future water demands, reduce scarcity, and maintain water quality. Effective implementation through technology, stakeholder engagement, and policy integration can ensure sustainable, equitable, and climate-resilient water management, supporting the country's broader objectives.

**Question:** Water budgeting is emerging as a key strategy for sustainable water management in India. Discuss its significance, methodology, challenges, and suggest measures to ensure its effective implementation at all administrative levels.

Source - [The BusinessLine](#)

## The right to disconnect in an 'always-on' economy

UPSC Syllabus Topic: GS Paper 3 – Indian Economy – Employment and labour productivity.

### Introduction

Digital tools have removed the clear boundary between work and personal life. Smartphones and laptops have turned evenings, weekends, and holidays into work time. Constant availability is now treated as commitment. This culture is harming health, productivity, and social stability. India needs a legal right to disconnect to protect workers from burnout and overwork.

### Right to Disconnect

The **Right to Disconnect** is a proposed legal entitlement for employees to disengage from work-related digital communications—such as emails, calls, and messages—outside of their official working hours without facing professional repercussions.

In India, a Private Member's Bill has been proposed to amend the Occupational Safety, Health, and Working Conditions Code, 2020 to formally recognise this right and extend protection to all employees.

### Why India needs the right to disconnect

**1. Excessive working hours:** India has extremely long working hours. Around 51% of workers work more than 49 hours a week. This places India among the highest globally for overwork. Such long hours are not sustainable.

**2. Widespread job burnout:** About 78% of employees report job burnout. Continuous work pressure causes physical and emotional exhaustion. Burnout reduces concentration and decision-making ability.

**3. Serious health consequences:** Poor work-life balance contributes to hypertension, diabetes, anxiety, and depression. Work-related stress linked to constant availability accounts for 10–12% of mental health cases. This increases pressure on public health systems.

**4. Decline in work quality:** Fatigued workers are more prone to mistakes. Long hours reduce creativity and efficiency. Measuring work by time instead of output harms productivity.

### 5. Gaps in India's current legal framework

- **Limited coverage of existing laws:** The Occupational Safety, Health, and Working Conditions Code, 2020, fixes working hours mainly for traditional workers. Many employees remain outside its protection.
- **Vulnerability of new-age workers:** Contractual, freelance, and gig workers often lack clear working hour limits. They face pressure to remain available at all times.
- **Unequal power relationship:** Employees fear punishment or job loss for ignoring after-hours communication. This fear prevents them from setting boundaries and worsens exploitation.

### What the right to disconnect seeks to achieve

1. **After-hours protection:** Employees should not be compelled to answer work-related calls, messages, or emails beyond fixed working hours. Non-response during personal time should not be treated as misconduct.
2. **Non-discrimination safeguard:** Exercising the right to disconnect should not lead to disciplinary action, denial of promotion, adverse appraisal, or termination. Career progression must remain unaffected.
3. **Grievance mechanism:** A formal system is required to report violations of this right. Effective resolution ensures the provision is enforceable and meaningful.
4. **Workplace dignity:** The right to disconnect allows employees to rest without fear of professional consequences. It protects physical and mental health and preserves personal time.

### Global best practices

1. **Global recognition:** The 'always-on' work culture is recognised worldwide as a serious challenge. Many countries have responded through specific labour protections.
2. **Early adopters:** France introduced the right to disconnect in 2017. Portugal, Italy, Ireland, and Australia later adopted similar safeguards for workers.
3. **Workplace protocols:** Employers are required to define clear rules for after-hours communication. These rules ensure that employee downtime is respected.
4. **EU working-time test:** The European Union treats employer control as the key test for working time. Availability under employer direction is counted as work.
5. **French approach:** France clearly separates working time and rest time. Any period where the employee remains under employer control is treated as working time.
6. **German standards:** Germany strictly enforces limits on working hours and mandatory rest periods. These rules protect employees from excessive work demands.
7. **Lessons for India:** These global practices help clarify when employee time belongs to the employer. They provide guidance for setting clear work and rest boundaries.

### Way forward

1. **Central amendment:** Amending the Occupational Safety, Health, and Working Conditions Code, 2020 can provide a clear legal basis for the right to disconnect. Uniform rules will reduce uneven enforcement.
2. **National uniformity:** Kerala has introduced legislation for the local private sector to address after-hours work demands. This shows recognition of the problem but also underlines the need for national coverage.
3. **Inclusive scope:** The amendment should cover contractual, freelance, and gig workers. This closes existing gaps in worker protection.

4. **Mental health integration:** The right to disconnect should be linked with mental health support at the workplace. This makes employee well-being part of occupational safety.

5. **Cultural shift:** Workplace norms must move away from valuing long hours and constant availability. Output and quality should be valued over presenteeism.

6. **Awareness building:** Employees and managers need training on healthy digital work practices. Sensitisation programmes can support effective implementation.

7. **Support systems:** Counselling and psychological services should become routine workplace provisions. These services help workers manage stress and recover effectively.

## Conclusion

The right to disconnect is vital for India's workforce and economic future. Excessive work hours, burnout, and stress threaten public health and productivity. Legal protection, cultural change, and mental health support must work together. By safeguarding personal time, India can protect its demographic dividend and build a sustainable, resilient, and productive economy.

For detailed information on **Right to disconnect – Significance and Challenges** read this article [here](#)

## Question for practice:

Examine how the 'right to disconnect' addresses the challenges of an always-on work culture in India and assess the need for a uniform legal framework in light of global best practices.

Source: [The Hindu](#)

## Rethinking India's skilling outcomes

**UPSC Syllabus Topic: GS Paper 2**-Issues relating to development and management of Social Sector/Services relating to Education, Human Resources.

## Introduction

Over the last decade, India has built one of the largest skilling systems in the world. Strong public funding and multiple schemes show serious intent. Yet skilling has not become an aspirational pathway for most youth. Employment outcomes remain weak, industry trust is low, and skills are poorly linked with education. This gap between effort and impact defines India's skilling challenge.

## Current status of India's skilling ecosystem

**1. Large-scale programme expansion:** Between 2015 and 2025, the Pradhan Mantri Kaushal Vikas Yojana trained and certified around 1.40 crore candidates. This reflects sustained government focus on skill development.

**2. Low formal vocational coverage:**

- Only about 4.7% of India's workforce has received formal vocational training. This is only a small rise from nearly 2% a decade ago.
- In comparison, vocational participation exceeds 70% in Germany and Japan and crosses 90% in South Korea.

### 3. Weak employability outcomes:

- Skill assessments show that only 51.25% of Indian youth are employable.
- Formal vocational training covers just 4.4% of youth, while 16.6% depend on informal training.

**4. Growing workforce pressure:** Around 12 million new entrants join the workforce every year. Annual training capacity is about 4.3 million. This gap highlights the scale of unmet skill demand.

### Concerns related to India's skilling ecosystem

**1. Low aspiration:** Despite training 1.40 crore candidates under Pradhan Mantri Kaushal Vikas Yojana (PMKVY), only about **4.7% of the workforce** has formal vocational training, showing weak preference for skilling.

**2. Weak legitimacy:** Degrees continue to dominate career mobility, while skilling lacks recognised qualification value. Only **2% of graduates pursue skilling certifications** after completing degrees.

**3. Limited wage gains:** Periodic Labour Force Survey (PLFS)-based observations indicate **modest and uneven wage benefits** from vocational training, especially in informal jobs where most trained workers are absorbed.

**4. Education-skill divide:** Higher education degrees are often viewed as **irrelevant by industry**, forcing graduates to unlearn academic knowledge and relearn workplace practices.

**5. Low youth employability:** Only **51.25% of Indian youth** are considered employable, despite years of skilling interventions, highlighting weak outcome quality.

**6. Training capacity gap:** Around **12 million new entrants** join the workforce annually, while training capacity is only **4.3 million**, creating a persistent skill deficit.

**7. Industry disengagement:** Most employers **do not use public skilling certificates** for hiring and rely on internal training, referrals, or private platforms instead.

**8. High attrition:** Attrition rates of **30–40%** in sectors like retail, logistics, hospitality, and manufacturing raise onboarding costs and productivity losses.

**9. Uneven apprenticeships:** **National Apprenticeship Promotion Scheme (NAPS)** participation has improved but remains **concentrated in large firms**, with limited penetration among smaller enterprises.

**10. Fragmented accountability:** Training, assessment, certification, and placement are handled by **separate entities**, leaving no institution accountable for employability outcomes.

**11. Weak certification value:** Employer surveys show that Sector Skill Council (SSC) certificates carry limited signalling value compared to degrees or prior work experience.

#### Initiatives taken to strengthen India's skilling ecosystem

**1. Restructured Skill India Programme:** The Union Cabinet approved continuation and restructuring of the Skill India Programme until 2026. An outlay of ₹8,800 crore supports PMKVY 4.0, NAPS, and Jan Shikshan Sansthan under one framework.

**2. Integration with higher education:** The National Credit Framework allows credit portability between vocational and mainstream education. This enables students to combine skills with degrees more easily.

**3. Modernisation of training institutions:** PM-SETU focuses on upgrading ITIs with better infrastructure and industry alignment. It aims to improve execution quality and shared responsibility.

#### Flagship Programs under Skill India Mission:

- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY):** Offers outcome-based, short-term skill training, incentivizes enrollment, and focuses on future skills, gender inclusivity, and Recognition of Prior Learning (RPL).
- **Pradhan Mantri National Apprenticeship Promotion Scheme (PM-NAPS):** Encourages on-the-job training with financial support (DBT) for apprentices, broadening scope to contractual staff and UGC institutions.
- **Jan Shikshan Sansthan (JSS):** Community-based vocational training for non-literates, neo-literates, and school dropouts, promoting lifelong learning.

#### Integration & Modernization:

- **National Education Policy (NEP 2020):** NEP 2020 integrates vocational education aligned with the National Skill Qualification Framework into school education from Classes 9 to 12. This aims to expose students early to work-related skills and career pathways.
- **Skill India Digital (SID):** It Uses AI for job matching and continuous learning, introducing new-age courses (e.g., Drone Pilots).
- **Industrial Training Institutes (ITIs) Revamping:** ITI reforms under schemes such as STRIVE focus on increasing industry ownership and introducing contemporary skills. These measures aim to make training more responsive to current workplace requirements.

#### What should be done?

**1. Embed skills within degree pathways:** Skilling must move along with formal education. Degrees provide legitimacy, while skills add relevance. Integrating both can raise aspiration and participation.

**2. Make industry a co-owner:** Industry should help design curricula, certification standards, and assessments. Skilling must reflect real job roles and workplace practices.

**3. Strengthen SSC accountability:** Sector Skill Councils must be made answerable for employability and placement outcomes, not just standards creation. Their credibility should depend on labour-market results.

**4. Align curricula with professional standards:** Courses should map clearly to industry portfolios and roles. National Skill Qualification Framework standards can guide alignment.

**5. Use Professors of Practice:** Industry experts can bridge gaps between academia and work. They can support curriculum design, assessment, mentoring, and employer feedback.

**6. Improve assessment and learner profiling:** Skill modules should define clear performance indicators and workplace tasks. AI-enabled skill profiling can help students choose suitable pathways.

## Conclusion

India's skilling challenge is rooted in weak accountability and poor integration, not lack of intent or funding. Skills must gain legitimacy through education, industry must become a co-owner, and institutions must own outcomes. This shift can turn skilling from fragmented welfare into a driver of productivity, dignity of labour, and sustained economic growth.

## Question for practice:

Discuss the reasons behind weak skilling outcomes in India despite large public investment, and suggest measures to make the skilling ecosystem aspirational, industry-relevant, and employment-oriented.

Source: [The Hindu](#)

## 'Natgrid' - the search engine of digital authoritarianism

UPSC Syllabus Topic: GS Paper 3 - Internal and external security

## Introduction

The Mumbai terror attacks of November 2008 exposed serious gaps in India's intelligence system. The failure was seen not as a lack of information, but as an inability to connect scattered data. This belief shaped the push for a technology-based solution. Over time, this response has expanded into a system of mass surveillance, raising concerns about legality, accountability, and democratic control.

## What is NATGRID?

The National Intelligence Grid, better known as NATGRID, is an **integrated IT solution** which would allow user agencies to access data gathered from various databases such as credit and debit cards, tax, telecom, immigration, airlines and railway tickets, passports, driving licenses among others.

**Aim:** It is being developed as a measure to **help security agencies** such as the Central Bureau of Investigation (CBI), Research & Analysis Wing (RAW) etc. in tackling crime and terror threats in the country.

## Evolution of NATGRID From Intelligence Tool to Mass Surveillance System

**1. Origin in the 26/11 intelligence failure:** The idea of National Intelligence Grid (NATGRID) emerged after the 2008 Mumbai terror attacks. The failure was defined as the inability to connect scattered intelligence inputs. NATGRID was proposed as a system to stitch together data points like travel, visas, and financial records.

**2. Initial design and limited scope:** NATGRID was announced publicly in December 2009. It was designed as a middleware platform allowing 11 central agencies to query 21 categories of databases. Its stated purpose was counter-terrorism and serious national security threats.

**3. Approval without legislation:** In June 2012, NATGRID was approved by executive order and the Cabinet Committee on Security. It was not backed by a law passed by Parliament. The first phase, Horizon-I, received ₹1,002.97 crore, despite unresolved concerns over safeguards and oversight.

**4. Long delay and perception of inactivity:** For several years, repeated delays led to the belief that NATGRID existed only on paper. It was widely seen as a response to public anger after 26/11 rather than a functioning system.

**5. Operational revival and expansion of usage:** By 2025, NATGRID became fully operational. States were asked to scale up its use after a national conference of Directors General of Police. The system began handling around 45,000 queries every month.

**6. Expansion beyond central agencies:** Access to NATGRID expanded from central intelligence agencies to State police units. Officers down to the rank of Superintendent of Police were allowed access, shifting NATGRID from exceptional intelligence use to routine policing.

**7. Integration with population-wide databases:** NATGRID was integrated with the National Population Register, which holds data on 1.19 billion residents. This marked a shift from tracking specific threats to mapping the entire population.

**8. Shift to algorithm-driven surveillance:** Advanced analytics like entity resolution and facial recognition were added. NATGRID moved from being a search platform to an inference system, where algorithms draw conclusions about individuals.

### Concerns Related to NATGRID

**1. Lack of legal foundation and independent oversight:** NATGRID operates without a law passed by Parliament. It was approved through executive action, without any independent authority to supervise its functioning. This creates a system of surveillance without clear constitutional safeguards or democratic accountability.

**2. Expansion beyond counter-terrorism:** NATGRID was justified as a tool for counter-terrorism and serious national security threats. Its use has expanded into routine policing and has been integrated with the National Population Register, which holds data on 1.19 billion residents. This shifts surveillance from tracking specific threats to mapping the entire population, raising serious concerns about proportionality and purpose.

**3. Algorithm-driven inference and loss of human judgment:** With tools like entity resolution and facial recognition, NATGRID no longer works as a simple search system. Algorithms now infer identity and intent, increasing the risk of errors based on machine-generated conclusions.

**4. Bias and unequal impact of errors:** Analytical systems reflect existing distortions in policing data. Caste, religious, and regional biases can be reinforced and presented as objective outcomes. False matches affect citizens unequally, with marginalised groups facing harsher consequences.

**5. Tyranny of scale and weak safeguards:** Around 45,000 queries are processed every month. At this scale, safeguards such as logging and classification risk becoming routine formalities, especially in the absence of independent scrutiny.

**7. Judicial and parliamentary silence:** Despite strong privacy principles laid down in Justice K.S. Puttaswamy vs Union of India, the legality of large-scale intelligence programmes has not been squarely examined. Parliamentary oversight remains minimal.

## Conclusion

The shock of 26/11 continues to shape India's security choices, but the remedy has been misdirected. Intelligence failures arise more from weak institutions and poor accountability than from lack of data. NATGRID has expanded from a counter-terror tool into a system of population-wide surveillance without legal backing or oversight. In the absence of parliamentary and judicial scrutiny, technology risks replacing judgment, and security risks sliding into digital authoritarianism.

## Question for practice:

Examine how the creation and expansion of NATGRID, as a response to the 26/11 intelligence failure, has raised concerns about mass surveillance, legality, and democratic accountability in India.

Source: [The Hindu](#)

## Ways to Reform Railway Finances

UPSC Syllabus Topic: GS Paper 3 -Infrastructure: Railways .

### Introduction

Indian Railways is under financial stress due to weak passenger pricing, rising costs, and dependence on freight cross-subsidy. Recent fare hikes are marginal and politically cautious. Long delays in reform have reduced revenue strength while costs continue to rise. Sustainable finances now require pricing reform, role clarity, and stronger freight and operational strategy.

## Concerns Related to Financial Sustainability of Indian Railways

### 1. Concerns Related to Pricing

- **Marginal fare hike:** The latest fare increase ranges from less than one paisa to two paise per kilometre across classes. The estimated annual gain is about ₹1,500 crore, which is only around 1.5 per cent of the ₹92,800 crore passenger revenue target for FY26.
- **Optimistic revenue claim:** Indian Railways projected ₹2,400 crore from the hike, but passenger kilometre estimates show ₹1,200 crore from Mail and Express trains and ₹300 crore from Ordinary Second Class, indicating clear overestimation.
- **Long fare freeze:** The last major passenger fare revision occurred in 2013. Since then, political reluctance has prevented regular fare correction, weakening passenger revenue growth over time.
- **Hidden financial strain:** The Operating Ratio appears to be kept just below 100 because part of the pension burden is absorbed through budgetary support. At the same time, only ₹800 crore is provided for depreciation, even though investments in railway assets have exceeded ₹15 lakh crore over the last decade. This masks the true financial stress.

## 2. Structural and Policy Gaps Affecting Railway Finances

- **Freight subsidy legacy:** Since the mid-2000s, higher wagon loadability increased freight earnings and allowed passenger fares to remain unchanged. This policy masked financial stress and later became unsustainable.
- **Suburban service burden:** Indian Railways increasingly serves suburban and commuter traffic, which is loss-making. Such services should largely be funded and managed by State and city governments, unlike inter-city travel.
- **Misplaced subsidies:** AC I and AC II classes receive subsidy despite being chosen for comfort. Only AC III and Chair Car services break even, showing weak targeting of subsidies.
- **Non-AC focus:** Continued emphasis on non-AC coaches leads to losses. Introducing affordable AC Chair Cars with over 100 seats can shift passengers and improve revenue.

## 3. Operational and Service Efficiency Gaps

- **Low train speeds:** Passenger trains suffer from congestion and inefficient operations, keeping average speeds low despite heavy capital investment and reducing service quality.
- **Excessive stoppages:** Many stoppages add little value and slow services. Data analytics can help remove unnecessary halts and improve efficiency.
- **Underused capacity:** Well-patronised trains are not extended to 24 coaches, limiting capacity expansion even where demand is high.

## 4. Freight Revenue Challenges

- **Revenue concentration:** Freight contributes about 65% of total railway earnings. Coal alone generates nearly 50% of freight revenue. This creates high revenue concentration risk.

- **Uneven zone growth:** Freight revenue growth varies sharply across zones. East-Central and South-East-Central zones doubled earnings since 2015–16, while others lagged. This reflects uneven freight strategy.
- **Outdated freight rates:** Freight rates were last revised in November 2018. Operational costs have increased since then. This reduces competitiveness with road transport.
- **Wagon shortages:** Indian Railways operates 4.27 lakh wagons and inducts around 30,000 annually. Large users like NTPC report rake shortages. This shows planning gaps.
- **Route congestion:** Average freight speed fell to 23.8 kmph in 2024–25. Passenger train priority and infrastructure works slow freight movement. Congestion affects reliability.
- **Weak terminals:** Many railway yards lack modern loading and storage facilities. Poor approach roads and platforms increase logistics costs. Terminal inefficiency discourages freight users.

### Initiatives Taken for the Sustainability of Indian Railways

1. **Reservation system reform:** Indian Railways has upgraded its reservation system with advanced anti-bot technology. A Content Delivery Network blocks ultra-fast automated bookings by rogue agents. This improves fairness and access for genuine passengers.
2. **Waitlist rationalisation:** Caps on waitlists have been revised to reduce uncertainty. Reservation charts are now finalised eight hours in advance. This helps passengers plan travel better.
3. **Dynamic pricing use:** Dynamic pricing has been introduced to align fares with demand. However, it remains limited in scope. Further refinement is required to improve revenue outcomes.
4. **Fare differentiation:** Differential pricing is proposed based on berth type and seat position. Upper, middle, and lower berths, as well as aisle and window seats, can be priced differently. This follows airline-style pricing without across-the-board fare hikes.
5. **Train capacity expansion:** Well-patronised trains can be extended up to 24 coaches. This increases capacity on high-demand routes. It improves revenue without adding new trains.
6. **Freight rate review:** Freight rates have not been revised since November 2018. Annual and commodity-wise assessment is recommended. This helps align rates with costs and market demand.
7. **Terminal modernisation:** Modern loading, unloading, and storage facilities are being promoted at railway yards. Gati Shakti Cargo Terminals with private participation support this effort. This improves freight handling efficiency and regional connectivity.
8. **Freight diversification:** Railways are encouraged to diversify beyond coal and iron ore. Automobiles, FMCG, and e-commerce are identified as key growth areas. This supports long-term revenue sustainability.

### Conclusion:

Indian Railways' financial stress reflects long-standing reluctance to reform passenger pricing, overreliance on freight cross-subsidy, and operational inefficiencies. Marginal fare hikes offer limited relief, while costs

continue to rise. Structural distortions in service focus, subsidy design, and freight dependence weaken sustainability. Without deeper pricing reform, efficiency gains, and balanced freight strategy, financial pressures will persist.

### Question for practice:

Examine the key factors contributing to the financial stress of Indian Railways and assess how recent pricing and operational measures attempt to address them.

Source: [Businessline](#)

## India's Battle against Antimicrobial Resistance (AMR)

Source: The post “India's Battle against Antimicrobial Resistance (AMR)” has been created, based on “Fine-tune this signal to sharpen India's AMR battle” published in “The Hindu” on 08th January 2026.

UPSC Syllabus: GS Paper-2- Governance

**Context:** Antimicrobial Resistance (AMR) poses a serious threat to public health in India, with common infections such as pneumonia, urinary tract infections, typhoid, and bloodstream infections increasingly showing resistance to standard antibiotics. The Prime Minister's reference to AMR in the December 2025 *Mann Ki Baat* broadcast marks a critical moment in India's fight against this growing crisis.

### Significance of the Prime Minister's Intervention

1. **First-of-its-Kind Mass Communication:** Rarely has AMR been addressed directly by the head of government to the general public, giving the issue unprecedented visibility.
2. **Use of National Evidence:** The speech cited Indian Council of Medical Research (ICMR) data, lending scientific credibility to the message.
3. **Focus on Irrational Antibiotic Use:** It identified indiscriminate and self-medicated antibiotic consumption as the core driver of AMR in India.
4. **Clear Behavioural Advisory:** Citizens were urged to avoid over-the-counter antibiotics and self-prescription, particularly without medical advice.
5. **Mainstreaming a Technical Issue:** AMR was moved out of hospital corridors and policy discussions into everyday public awareness, linking personal behaviour to national health outcomes.
6. **Potential to Shift Outcomes:** By striking at the broadest population base, the intervention may influence AMR trends more effectively than earlier policy-only measures.

### Why Awareness Alone Is Insufficient

1. **Advanced Stage of AMR Spread:** Experts describe AMR in India as a “hydra-headed” challenge, requiring multiple, coordinated interventions.
2. **One Health Imperative:** Human health, animal health, agriculture, water safety, and environmental contamination are deeply interconnected in the AMR pathway.
3. **Structural Drivers Persist:** Poor sanitation, unsafe drinking water, unregulated antibiotic sales, and agricultural antibiotic use continue to fuel resistance.

### Critical Gaps in India's AMR Surveillance System

1. **Urban and Tertiary-Centric Surveillance:** Most sentinel sites are located in medical colleges and urban tertiary hospitals, skewing national averages.
2. **Exclusion of Non-Urban Centres:** Community-level prevalence in rural and semi-urban areas remains largely undocumented.
3. **Limited Site Coverage:** Although NARS-Net has 60 laboratories, recent WHO-GLASS reporting relied on data from only 41 sites across 31 States/UTs.
4. **Incomplete Pathogen Tracking:** Surveillance focuses on nine priority bacterial pathogens, potentially missing emerging resistance patterns.
5. **Absence of Private Sector Data:** Private hospitals, which handle a large share of healthcare delivery, are mostly excluded, limiting representativeness.
6. **Policy Blind Spots:** Without comprehensive data, antibiotic stewardship and targeted interventions remain weak.

### Way Forward

1. **Expand Surveillance Footprint:** Include primary and secondary care facilities, rural health centres, and private hospitals.
2. **Strengthen One Health Surveillance:** Integrate data from human health, veterinary sectors, food systems, and the environment.
3. **Improve Data Quality and Timeliness:** Standardise reporting and strengthen laboratory capacities across regions.
4. **Enhance Regulatory Enforcement:** Strictly monitor over-the-counter antibiotic sales and misuse in agriculture.
5. **Invest in Research and Innovation:** Support development of new antimicrobials, diagnostics, and vaccines, as recommended by the WHO Global Action Plan.
6. **Sustain Public Communication:** Continue high-level messaging to reinforce responsible antibiotic use.

**Conclusion:** The Prime Minister's *Mann Ki Baat* reference to AMR represents a crucial turning point by transforming scientific warnings into a public call to action. However, for India to effectively combat AMR, awareness must be matched with a robust, decentralised, and inclusive surveillance system backed by a One Health approach and sustained political commitment.

**Question:** Discuss the significance of the Prime Minister's reference to antimicrobial resistance (AMR) in 'Mann Ki Baat'. Examine why strengthening AMR surveillance remains critical for India's public health response.

### Worrying trends in economic inequality in India

**Source:** The post "Worrying trends in economic inequality in India" has been created, based on "Worrying trends in economic inequality in India" published in "BusinessLine" on 08th January 2026.

**UPSC Syllabus:** GS Paper-3- Economy

**Context:** Economic inequality has been rising sharply across the world, and India is no exception to this trend. While the country has achieved sustained economic growth over the past decades, the distribution of the gains from this growth has been highly uneven. A significant concentration of income and wealth among higher-income groups has resulted in widening disparities, posing serious challenges to inclusive and sustainable development.

## Trends in Income and Wealth Inequality in India

1. **High Income Inequality:** The income ratio of the top 10 per cent to the bottom 50 per cent in India stands at **3.87**, indicating that the top decile earns nearly four times the income of half the population. This reflects substantial income inequality, which is higher than in countries such as China and Russia, though lower than extremely unequal societies like Brazil and South Africa. Such a ratio signals stress on social mobility and fairness.
2. **Extreme Wealth Concentration:** Wealth inequality in India is far more severe than income inequality. The **top 1 per cent control nearly 40 per cent of total national wealth**, while the **bottom 50 per cent possess only about 6 per cent**. This concentration of assets enables higher-income groups to consolidate economic power and influence, further widening long-term disparities.
3. **Rising Income Gini:** The income Gini coefficient, a comprehensive measure of inequality, has increased from **around 0.47 in 2000 to about 0.61 in 2023**. This sharp rise indicates a worsening distribution of income over time and suggests that economic growth has disproportionately favoured the top segments of society.
4. **Misleading Consumption Equality:** Consumption-based inequality indicators show a relatively low and declining Gini of **0.255 in 2022–23**, leading some rankings to classify India as a low-inequality country. However, consumption data exclude savings, investments, and wealth accumulation, thereby masking the true depth of economic inequality, especially among higher-income groups.

## Reasons Behind Rising Inequality

1. **Uneven Growth Pattern:** India's growth trajectory has favoured **urban regions, high-skill services, and capital-intensive sectors**, while agriculture and the informal sector—employing a majority of the workforce—have lagged behind. This sectoral imbalance has resulted in unequal income generation opportunities across regions and occupations.
2. **Jobless and Precarious Growth:** Economic growth has not translated into proportional job creation. Job losses, rising informalisation, and the expansion of the **gig economy** have increased employment insecurity. The lack of stable, well-paying jobs has widened wage gaps and reduced income security for large sections of the population.
3. **Reinforcing Income–Wealth Cycle:** Higher-income groups benefit more from policy changes and possess a greater capacity to save and invest. These higher saving rates translate into faster wealth accumulation, which further increases income through capital returns. This creates a self-reinforcing cycle where income inequality feeds into wealth inequality and vice versa.
4. **Structural and Social Factors:** Persistent inequalities in access to **quality education, healthcare, credit, and economic opportunities** limit upward mobility for disadvantaged groups. Social exclusion based on caste, gender, and region continues to perpetuate inequality across generations.

## Policy-Related Contributors

1. **Regressive Taxation:** India's taxation and redistribution policies have not sufficiently offset inequality. Limited progressivity in direct taxes and greater reliance on indirect taxes have placed a disproportionate burden on lower-income groups, weakening redistributive outcomes.
2. **Declining Social Sector Priority:** Despite rising needs, social sector spending has declined as a share of total government expenditure, reaching **around 17 per cent in 2024–25**, with only a modest increase projected. This reflects a reduced emphasis on welfare and human development.

3. **Underinvestment in Health and Education:** Public spending on health and education has lagged behind requirements. Declining budgetary shares for these sectors weaken human capital formation, reduce productivity, and exacerbate long-term inequality.
4. **Weakened Employment Safety Nets:** The replacement of the demand-driven **MGNREGS** with the supply-driven *Viksit Bharat – Guarantee for Rozgar and Ajeevika Mission (Gramin)* shifts financial responsibility to fiscally constrained States. This reduces assured income support for rural households and disproportionately affects the most vulnerable sections.

### Implications of Rising Inequality

1. Rising inequality weakens **domestic demand** as large sections of the population have low purchasing power.
2. It hampers **inclusive growth and job creation**, increases social and regional disparities, and threatens long-term economic stability in a **consumption-driven economy** like India.
3. Persistent inequality can also undermine social cohesion and democratic accountability.

### Way Forward

1. **Adopt Demand-Driven Income Policies:** Strengthening wages, expanding public employment, and enhancing social protection can directly raise incomes at the bottom and stimulate demand.
2. **Revive and Strengthen Employment Guarantees:** Restoring demand-driven rural employment programmes can provide income security and act as an automatic stabiliser during economic downturns.
3. **Increase Social Sector Spending:** Greater investment in health, education, and nutrition is essential to address structural inequality and improve long-term productivity.
4. **Progressive Taxation and Redistribution:** More progressive taxation of income and wealth, combined with effective redistribution, can help reduce excessive concentration of resources.
5. **Support Labour-Intensive Industries:** Promoting MSMEs and labour-intensive manufacturing can generate large-scale employment and reduce income disparities.
6. **Boost Domestic Demand:** Raising incomes of the bottom and middle classes is critical for sustaining economic growth in a consumption-led economy.

**Conclusion:** India's rising income and wealth inequality is rooted in deep structural imbalances and policy choices that have favoured capital and high-income groups. Addressing this challenge requires a decisive shift towards inclusive, demand-driven growth, higher social investment, and effective redistribution. Without such corrective action, economic growth risks becoming socially and economically unsustainable.

**Question:** Economic growth in India has been accompanied by rising economic inequality. Examine the trends, causes, and policy-related factors behind increasing income and wealth inequality in India. Suggest measures to address the challenge.