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**EDITORIAL
ANALYSIS**



JULY 11



**CONSISTENT
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**UNIQUE AND BEST
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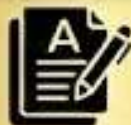
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Terrorism's data retreat hides emerging global threats

At first glance, the macroeconomic indicators of global security offer a rare moment of statistical comfort. Recent reports suggest that global terrorism experienced a noteworthy decline in 2025, with fatalities around the world falling to 5,582 across 2,944 recorded incidents – representing a 28% drop in deaths and a 22% reduction in overall attacks. With as many as 81 nations registering measurable improvements in their domestic security landscapes, a superficial reading of the data might suggest that the international community is finally turning the tide against terror, or as the strategists prefer to call it, asymmetric warfare.

Beyond statistical comfort

Yet, there lies a far more unsettling reality: the world is not necessarily becoming safer; it is becoming unevenly unsafe. The aggregate reduction in violence masks a profound structural mutation in how terror operates, where it thrives, and how we, as a global society, perceive it.

It raises a haunting philosophical and strategic question: have we begun to subconsciously accept terrorism not as a horrific aberration to be entirely eradicated, but as a “normal” tax on modern civilisation?

There is an insidious trap in treating aggregate declines as a triumph. When violence becomes highly concentrated, it risks becoming invisible to the global conscience. The data show that nearly 70% of all terrorism-related deaths are now compressed into five countries: Pakistan, Burkina Faso, Nigeria, Niger, and the Democratic Republic of the Congo. Sub-Saharan Africa, particularly the volatile Sahel region, alone accounts for over half of all global fatalities.

Because the vast majority of this devastation occurs within these specific, vulnerable geographies, the wealthier and more stable quarters of the world are prone to a dangerous complacency. When terrorism is confined to nations already beset by chronic systemic fragility, the international community tends to relegate it to background noise – a tragic feature of post colonial states.

This regional containment fosters a false sense of security. Not every terror incident is a Pahalgam: organised, ruthlessly planned and flawlessly executed. The rise of decentralised, transnational, and rapid digital recruitment has facilitated lone-actor attacks in many countries. When the methodology of terror shifts from massive, complex operations to low-tech, high-impact individual strikes incited on online echo-chambers, the threat becomes an



Shashi Tharoor

Fourth-term Member of Parliament (Lok Sabha) for Thiruvananthapuram (Congress party), the Chairman of the Parliamentary Standing Committee on External Affairs and the Sahitya Akademi Award-winning author of 29 books, including 'Pax Indica: India and the World of the 21st Century'

While the world may be recording fewer terrorist attacks, it is simultaneously confronting a far more resilient and adaptive adversary

internalised, ambient hazard of modern pluralistic societies. By treating these as an unavoidable operational hazard of the 21st century, we risk normalising the unacceptable.

Reaction to prevention

To prevent terrorism from metastasising further, counter-terrorism strategy must move away from reactive responses and toward addressing the structural ecology of extremist violence. There are two critical arenas where this intervention must take place: the blurring line between state conflict and terrorism, and the specific vulnerability of international frontiers.

First, the data establishes an overwhelming correlation between political instability and violent extremism: an estimated 99% of all terrorism-related deaths occur in nations already entangled in armed conflict. Terrorism is rarely an isolated phenomenon generated in a vacuum; it is the ultimate by-product of institutional or diplomatic collapse. Where state capacity is hollowed out, extremist groups swiftly step into the vacuum, offering alternative forms of primitive security, or ideological certainty to disillusioned populations.

Second, the geography of modern terror has become distinctly granular. Over 60% of attacks now take place within 100 kilometres of international borders. These frontier zones, frequently neglected (or weaponised) by central governments, offer ideal operational sanctuaries. In these porous margins, terrorist syndicates manage cross-border movements, establish illicit supply lines, and conduct recruitment enabled or unhindered by state authority.

Curbing this threat requires an intentional re-investment in state capacity, development and border sovereignty. If central authorities continue to treat borderlands as secondary priorities, they leave the door open for non-state actors to entrench themselves. Furthermore, development assistance must be strategically aligned with security imperatives, treating the reinforcement of judicial systems, localised policing, and basic administrative services as the primary bulwarks against extremist encroachment.

Whether the statistical downward trend recorded in 2025 will endure remains an open and highly precarious question. The contemporary security landscape is caught in a tug-of-war between institutional stabilisation efforts and powerful destabilising catalysts.

The constriction of violent extremism to a smaller pool of actors – specifically the five dominant networks (Islamic State, Jama'at Nusrat Al-Islam wal Muslimin (JNIM), Tehrik-e-Taliban Pakistan (TTP), Lashkar-e-Taiba and al-Shabaab)

– means that counter-terrorism forces can achieve maximum impact through highly focused intelligence and interdiction efforts. As the threat becomes more localised and frontier-centric, multinational intelligence apparatuses must become equally agile, disrupting cross-border logistics before they can scale into wider insurgencies. Tech platforms and state regulatory bodies must continue to refine their capabilities to detect and dismantle decentralised digital radicalisation pipelines before they can catalyse lone-actor violence.

However, the headwinds militating against a sustained decline are formidable. The ongoing conflicts in West Asia threaten to completely reverse recent global gains. Prolonged warfare, mass displacement, and the systematic erosion of state institutions create a uniquely fertile breeding ground for extremist resurgence in 2026 and beyond. The persistence of major geopolitical conflicts, including India-Pakistan, lowers the barriers to entry for new, fragmented radical actors, further complicating the global threat matrix.

Furthermore, even within the current downward trend, the stark resilience and adaptability of organisations such as the TTP – which bucked the general decline by increasing its attacks – serve as a potent warning. Modern terrorist organisations are highly adaptive entities. When squeezed globally, they fragment, localise, and embed themselves within pre-existing domestic ethnic or political grievances, making them extraordinarily difficult to curb.

The complacency trap

The ultimate lesson of the contemporary security paradigm is that terrorism is not receding; it is simply reorganising. The international community cannot afford to be lulled into a state of complacency by declining aggregates; it is simultaneously confronting a far more complex, resilient, and adaptive adversary.

For nations such as India, navigating an immediate strategic environment surrounded by highly volatile neighbourhoods and cross-border security challenges, these transformations require a continuous, sophisticated recalibration of both domestic and regional counter-terrorism doctrines. We must not surrender the moral and strategic clarity required to defeat it. The numbers may be falling, but the structural risks are not. True security will not be achieved by celebrating statistical lulls, but by relentlessly dismantling the fault lines of conflict, governance failures, and digital radicalisation that allow the ideology of terror to survive.

- **Key Terms and Explanations**

- **Asymmetric Warfare:** A conflict where the relative military power, strategies, and tactics of the combatants differ significantly. Instead of army-versus-army engagements, a weaker non-state actor leverages unconventional tactics—such as guerrilla warfare, improvised explosive devices (IEDs), and cyber operations—to exploit the vulnerabilities of a far superior state military.

- *Example:* The operational methods of the Taliban in Afghanistan or Naxalite insurgents in the dense forests of Central India against structured state security forces.

- **The Complacency Trap:** A psychological and strategic phenomenon where a statistical or quantitative decline in security threats lulls policymakers and the public into a false sense of safety. This focus on declining macro-aggregates masks severe, localized increases in violence and causes states to lower their operational guards.

- **Ambient Hazard:** A threat vector that has transitioned from being a shocking, anomalous event to an internalised, permanent, and expected background feature of modern life. It implies that society has sub-consciously accepted a baseline level of threat as an unavoidable condition of existence.

- *Example:* The persistent, low-level threat of lone-actor stabbings or vehicular rammings in major European metropolitan centres.

- **Lone-Actor Terrorism:** Violent attacks conducted by single individuals who design, prepare, and execute their actions without direct command-and-control support from a formal terrorist hierarchy. While they lack organizational backing, their radicalisation is heavily driven by decentralized, digital echo chambers.

- **Frontier-Centric Threat Matrix:** The strategic concentration of insurgent or terrorist activities within the peripheral margins of a state, specifically within 100 kilometres of international borders. These zones are deliberately chosen to exploit the jurisdictional friction, geographic terrain, and administrative voids between sovereign nations.

- **Structural Ecology of Extremism:** The complex network of socio-political, institutional, and economic failures—such as civil war, systemic corruption, ethnic marginalisation, and state collapse—that creates a fertile breeding ground for radical ideologies. It treats terrorism not as an isolated criminal act, but as a symptom of a deeper systemic disease.

- **Main Arguments and Substantive Parts**

- The contemporary discourse on global security reveals a profound paradox: while global quantitative data points to a reduction in absolute violence, the underlying qualitative threat has grown more resilient, concentrated, and elusive.

- **The Illusion of Statistical Relief**

- The macro-level statistics of security present an encouraging picture, noting a global drop in fatalities by 28% and total incidents by 22% within a single calendar year. Across the globe, 81 nations have registered measurable improvements in their domestic security environments. However, treating these aggregate declines as an absolute victory is a strategic mistake. Quantitative drops hide structural mutations; terrorism is not disappearing, it is reorganising.

- **The Concentration and Invisibility of Violence**

- The global reduction in numbers is driven by a stark reality: violence has become highly concentrated within specific, fragile geographies. Nearly 70% of all terrorism-related deaths are now confined to just five nations: Pakistan, Burkina Faso, Nigeria, Niger, and the Democratic Republic of the Congo (DRC).
- Sub-Saharan Africa, particularly the Sahel region, accounts for more than half of all global fatalities. This geographic isolation creates a moral and strategic blind spot. Because the devastation is contained within chronically fragile or post-colonial states, wealthier and more stable quarters of the world relegate this violence to "background noise," fostering a dangerous global complacency.

- **The Mutation of Terror Methodologies**

- The nature of execution has shifted. The era of highly coordinated, complex, and logistically heavy transnational operations is giving way to decentralized, low-tech, high-impact lone-actor strikes. Enabled by digital recruitment pipelines and algorithmically driven online echo chambers, radicalisation has bypassed traditional command networks. This shifts the threat from an external military challenge to an ambient hazard embedded within pluralistic societies, presenting a severe challenge to counter-terrorism apparatuses.

- **The Conflict-Terror and Frontier Nexus**

- The operational geography of modern terrorism is deeply tied to political instability and border dynamics:

- **The Conflict Link:** An estimated 99% of all terrorism-related deaths occur in nations already entangled in active armed conflicts. Extremism does not emerge in a vacuum; it is the natural byproduct of institutional or diplomatic collapse, where non-state actors step in to provide alternative, primitive security or ideological certainty.

- **The Border Margin:** Over 60% of all terrorist attacks take place within 100 kilometres of international frontiers. These porous margins, often neglected or actively weaponised by central states, serve as ideal operational sanctuaries, allowing networks to manage cross-border supply lines and evade state jurisdiction.

- **Historical Evolution of the Issue**
- **The Pre-1990s Era: State Sponsorship and Ideological Blocs**
 - During the Cold War, terrorism was primarily characterized by state-sponsored proxies or localized ideological/ethno-nationalist movements. Groups operated with explicit geopolitical backing, focusing on high-profile political assassinations, hijackings, and localized insurgencies. Security challenges in regions like South Asia were defined by structural fault lines created during decolonisation, which hostile neighbors weaponised to wage low-intensity proxy warfare.
- **The Post-9/11 Era: The Rise of Transnational Franchises**
 - The dawn of the 21st century marked the rise of centralized, highly structured transnational terrorist networks, epitomized by Al-Qaeda. This era introduced the concept of globalized terror—simultaneous, logistically complex operations planned across continents.
 - The international response was equally centralized, leading to the Global War on Terror, the establishment of UN Security Council Resolution 1373, and the empowerment of strict financial watchdogs like the Financial Action Task Force (FATF) to choke institutional terror financing.
- **The 2010s: Territorial Control and Hybrid Governance**
 - The evolution took a turn with the rise of the Islamic State (ISIS) in Iraq and Syria. Moving beyond asymmetric hit-and-run tactics, extremism evolved into a hybrid state-like entity that held physical territory, managed local economies, and maintained a global digital propaganda machine.
 - While international military coalitions eventually dismantled this physical "caliphate," the breakdown caused the threat to fragment and scatter across new regions.
- **The Current Era: Localised Consolidation and Digital Decentralisation**
 - Today, the threat has evolved into a two-pronged challenge:
 - On one hand, it has consolidated into a smaller pool of dominant networks (such as ISIS franchises, JNIM, TTP, Lashkar-e-Taiba, and al-Shabaab) operating within deeply fragile, conflict-ridden borderlands like the Sahel and parts of South Asia.
 - On the other hand, it has fully digitized. Physical command structures have been replaced by decentralized, automated online radicalisation pipelines, making lone-actor strikes the primary internal security concern for stable democratic nations.

MACROECONOMIC INDICATORS OF GLOBAL SECURITY: BEYOND STATISTICAL COMFORT - A UPSC ANALYSIS

GLOBAL SECURITY: THE APPARENT DECLINE



▼ **22%** reduction in overall attacks across across 2,944 incidents in 2025

81 nations showing measurable improvements to reions

TRADING THE TIDE? ASYMMETRIC WARFARE

ADAPTIVE THREATS & GEOPOLITICAL WINDS

DOMINANT NETWORKS

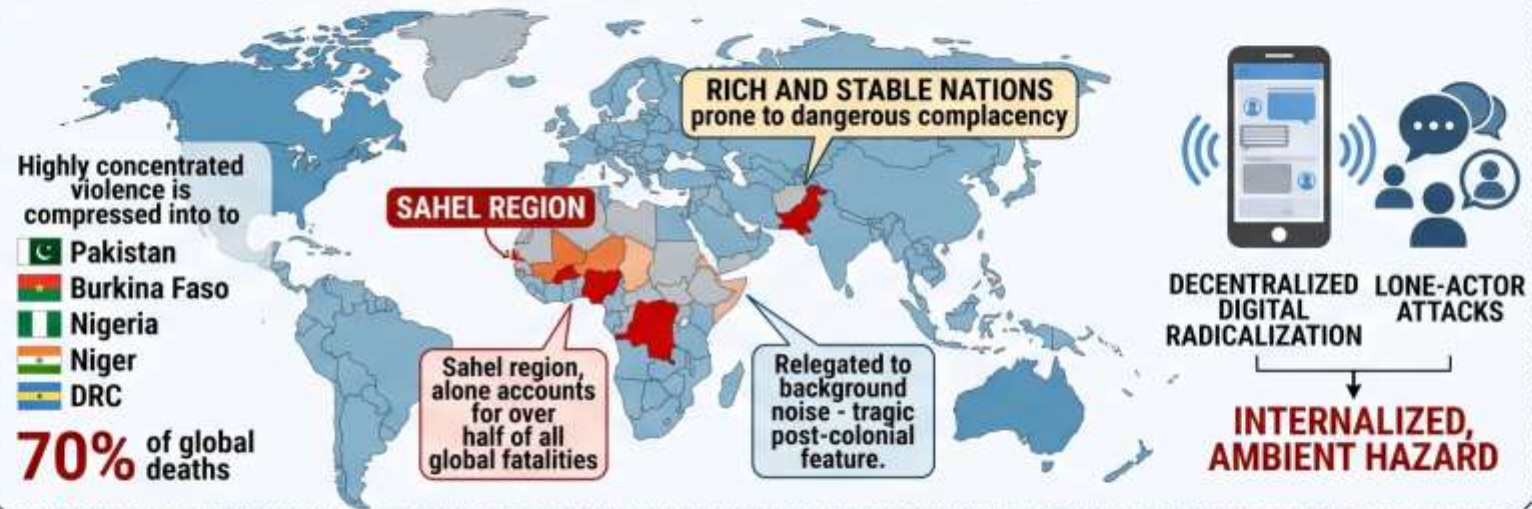
Islamic State JNIM TTP
TTP Lashkar-e-Taiba Al-Shabaab

TTP is increasing attacks and conflicts in West Asia will reversing global gains.

Groups are adaptive, fragment, localise, embed within ethnic/political grievances.

COMPLACENCY is a danger.

THE COMPLACENCY TRAP: UNEVEN UNSAFETY



FROM REACTION TO PREVENTION: THE STRUCTURAL ECOLOGY OF VIOLENCE

STATE CONFLICT & EXTREMISM Nexus

- 99% of terrorism deaths are in conflict zones.
- Extremist groups step into institutional vacuums



GEOGRAPHY of modern terror

- Over 60% of attacks within 100km of borders
- Porous margins offer ideal sanctuaries for cross-border logistics
- Neglected/weaponized frontier zones

CURBING THE THREAT

- Focused Re-investment in state capacity, development, and border sovereignty
- Development assistance aligned with security
- Reinforcing judicial systems, localized policing, basic administrative services

UPSC CSE SYLLABUS LINKAGES

GS Paper III

- Internal Security
- LWE
- Border Management
- Organized Crime

GS Paper II

- Internal Security
- LWE
- Organized Crime

GS Paper IV

- Neighborhood Dynamics
- IR

GS Paper IV

- Ethics

Essay/Optional subjects

UPSC CSE SYLLABUS LINKAGES

- **Logical and Philosophical Base**

- The debate surrounding contemporary counter-terrorism strategies rests on profound philosophical questions regarding governance, human value, and the nature of the modern nation-state.

- **The Normalisation Paradigm and the "Civilisation Tax"**

- At the heart of this issue is a disturbing philosophical shift: the transition from an absolute moral rejection of terrorism to a utilitarian acceptance of it as a "normal tax" on modern pluralistic civilization. This logic treats a baseline level of violent disruption as an unavoidable operational hazard of open societies, akin to traffic accidents or systemic inflation. This normalisation erodes the moral clarity required for total eradication, replacing it with passive containment.

- **The Tyranny of Averages versus Qualitative Reality**

- From an epistemological standpoint, evaluating global security through macro-level quantitative metrics represents a flawed approach to data. Relying on aggregate global declines creates an optical illusion of safety.

- This mathematical reductionism treats all lives as interchangeable statistics, ignoring the fact that while the *global average* improves, the *local reality* for communities in places like the Sahel or Pakistan has grown far more volatile. It exposes a profound disconnect between statistical comfort and human security.

- **The Hobbesian Vacuum and the Alternative Social Contract**

- Philosophically, the absolute correlation between state conflict and terrorism (99% of deaths occurring in warzones) validates the Hobbesian view of sovereign authority. Where the legitimate state apparatus collapses or fails to project its power, a security vacuum is created.

- Extremist networks fill this void not just through violence, but by offering a primitive, brutal form of order, justice, and economic survival to disillusioned populations. In these contexts, terror groups act as competitive state-builders, exploiting the total breakdown of the traditional social contract.

- **Multidimensional Analysis**

- **Social Dimension**

- The shift toward decentralized digital radicalisation has transformed the social fabric of open societies. Online echo chambers exploit underlying social fractures—such as systemic alienation, identity crises, and Islamophobia or communal polarization—to radicalise vulnerable individuals. Furthermore, within highly concentrated conflict zones like the DRC or Nigeria, persistent violence destroys social capital, displaces entire populations, and creates inter-generational trauma that fuels future cycles of radicalisation.

- **Political Dimension**

- The concentration of terrorism in specific geographies highlights a crisis of political legitimacy and state capacity. When central governments fail to extend basic administrative services, judicial mechanisms, and security to their peripheral regions, they suffer a breakdown in sovereign authority. Politically, this leads to weak regimes either completely losing territory to insurgent groups or actively weaponising these border tensions to maintain domestic power, subverting democratic governance.

- **Legal Dimension**

- Modern counter-terrorism faces an uphill battle within the legal sphere. Traditional legal frameworks, built to counter state actors or tangible, hierarchy-bound organizations, struggle against decentralized digital pipelines and lone actors.

- States face a delicate legal balancing act: enacting stringent national security laws (such as India's UAPA) to preempt ambient threats while safeguarding fundamental civil liberties, data privacy, and human rights. Additionally, prosecuting cross-border crimes occurring in poorly regulated frontier zones remains a major jurisdictional hurdle.

- **Ethical Dimension**

- The ethical dimensions of the current security landscape reveal a stark global hierarchy of human value. The international community's tendency to treat massive casualties in Sub-Saharan Africa or South Asia as "background noise," while reacting with intense urgency to low-tech incidents in western capitals, exposes a deep moral blind spot.

- From a policy standpoint, this raises a critical question: is it ethical for states to adopt surveillance regimes that treat entire citizenries as potential ambient hazards in the name of prevention?

- **International Dimension**

- Terrorism remains a highly complex issue within international relations, frequently exacerbated by geopolitical rivalries. The persistence of major friction points, such as the India-Pakistan dynamic or broader instabilities in West Asia, lowers the barriers to entry for fragmented radical actors. Hostile states continue to use cross-border terrorism as a cost-effective foreign policy tool, stalling multilateral consensus within bodies like the United Nations and preventing the adoption of a Comprehensive Convention on International Terrorism (CCIT).

- **Economic Dimension**

- The economic fallout of concentrated terrorism is devastating. It creates a destructive feedback loop: economic deprivation fuels radicalisation, and the resulting violence drives away capital, destroys critical infrastructure, and causes severe capital flight.

- Fragile states are forced to divert scarce financial resources away from crucial development sectors—like healthcare, education, and social welfare—into defense and kinetic security operations, locking these regions into perpetual underdevelopment.

- **Linkages with NCERTs**
- **Class XII Political Science: Contemporary World Politics**
- **Chapter Relevant:** *Security in the Contemporary World*
- **Connection:** This chapter contrasts traditional military security with non-traditional, human security threats. The conceptual transition of terrorism from massive, state-backed operations to an ambient, decentralized digital hazard directly mirrors the textbook's discussion on the shifting paradigm of global threats and the vital need for international cooperative security.
- **Class XII Political Science: Politics in India Since Independence**
- **Chapter Relevant:** *Regional Aspirations & Crisis of Democratic Order*
- **Connection:** These sections detail India's historical struggles with internal secessionist movements, insurgencies in the Northeast, and cross-border militancy in Jammu and Kashmir. The modern reality of frontier-centric terror (attacks within 100km of borders) expands directly upon the textbook's themes regarding the challenges of integrating geographic peripheries and building robust state capacity.
- **Class XI Sociology: Introducing Sociology**
- **Chapter Relevant:** *Social Institutions and Understanding Society*
- **Connection:** These chapters examine how social stability relies on strong primary institutions. When these institutions fracture due to conflict or economic collapse, it creates a state of anomie (normlessness). This sociological breakdown explains why vulnerable populations in conflict zones often look to extremist organizations for alternative governance structures.

- **Linkages with UPSC CSE Syllabus**
- **GS Paper III: Internal Security and Cyber Security**
- **Syllabus Topic:** *Linkages between development and spread of extremism; Role of external state and non-state actors in creating challenges to internal security; Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security.*
- **Application:** The analysis directly addresses the core relationship between hollowed-out state development and the rise of extremism. It provides actionable arguments regarding how decentralized digital networks leverage online echo chambers to bypass physical state boundaries, completely redefining the traditional internal security threat matrix.
- **Syllabus Topic:** *Security challenges and their management in border areas - linkages of organized crime with terrorism.*
- **Application:** The finding that over 60% of terrorist incidents occur within 100km of international frontiers serves as highly relevant data for questions on border management, porous frontiers, and the exploitation of administrative vacuums by non-state actors.
- **GS Paper II: International Relations and Governance**
- **Syllabus Topic:** *India and its neighborhood- relations; Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.*
- **Application:** This analysis offers critical insights into how regional instabilities in West Asia and persistent friction along the India-Pakistan border lower the entry barriers for fragmented radical groups, impacting India's strategic calculations and neighborhood policy.
- **GS Paper IV: Ethics, Integrity, and Aptitude**
- **Syllabus Topic:** *Ethical concerns and dilemmas in government and private institutions; values in international relations.*
- **Application:** The concept of the "complacency trap" and the normalisation of terrorism as a "civilisation tax" provide excellent material for essays and ethics answers focusing on the moral hierarchies of global human security and the balance between national security surveillance and individual privacy rights.
- **Essay Paper & Optional Subjects**
- **Application:** Highly relevant for philosophical or security-oriented essays. It also provides rich academic material for candidates with Optionals such as **Political Science and International Relations (PSIR)** (Global Security Architecture, Terrorism), **Sociology** (Deviance, Conflict Systems), and **Public Administration** (Crisis Management, Border District Governance).

- **Way Forward**

- **Transitioning from Attrition to Prevention:** Counter-terrorism doctrines must look beyond kinetic, military-first strategies aimed solely at eliminating active personnel. Instead, global and domestic policies must focus on rehabilitating the institutional ecology of fragile regions, systematically rebuilding administrative, judicial, and civic infrastructure in areas prone to power vacuums.
- **Socio-Economic Mainstreaming of Border Peripheries:** Given that over 60% of violent incidents are concentrated near international borders, states must treat these frontier zones as developmental priorities rather than secondary security outposts. This involves making targeted investments in local infrastructure, connectivity, localized civil policing, and swift justice delivery mechanisms to prevent non-state actors from entrenching themselves.
- **Algorithmic Accountability and Digital Counter-Pipelines:** To disrupt the decentralized recruitment channels driving lone-actor violence, regulatory bodies must collaborate closely with technology and social media platforms. This requires enforcing strict programmatic audits of recommendation algorithms that foster extremist echo chambers, while deploying agile, counter-narrative strategies powered by advanced artificial intelligence.
- **Focused, Border-Centric Intelligence Architecture:** Since global threats are increasingly concentrated within a smaller pool of dominant networks (such as ISIS, JNIM, TTP, and LeT), intelligence agencies must shift from broad tracking methods to highly agile, localized interdiction cells. This requires deploying advanced real-time geospatial intelligence, signals collection, and drone reconnaissance across porous international lines to disrupt cross-border logistics before they scale into wider insurgencies.
- **Strengthening Multilateral Financial Watchdogs:** To prevent the resurgence of fragmented actors in highly volatile regions, the international community must revitalize its commitments to frameworks like the Financial Action Task Force (FATF). This involves plugging emerging regulatory loopholes in decentralized cryptocurrency channels, shell company networks, and informal hawala systems that terrorist syndicates rely on to sustain their cross-border operations.

- **Civil Services Exam (Mains) - GS Paper III**

- **"Terrorism is emerging as a competitive method of waging warfare."**

With reference to this statement, analyze the vulnerabilities of India's border regions to asymmetric warfare conducted by non-state actors. *(250 Words, 15 Marks)*

- The nexus between organized crime, political instability, and terrorist networks thrives within the neglected margins of sovereign states. Discuss the strategic measures required to eliminate the operational sanctuaries existing along India's international land borders. *(150 Words, 10 Marks)*
- Analyze how decentralized digital networks and automated communication platforms have transformed the recruitment methodologies of global terror franchises, turning terrorism into an "ambient hazard" for democratic societies. *(250 Words, 15 Marks)*
- **"Development assistance must be strategically aligned with security imperatives."** Evaluate this statement in the context of countering Left-Wing Extremism (LWE) and borderland insurgencies in India. *(150 Words, 10 Marks)*

- **Assam Public Service Commission (APSC) - Mains Context**

- Given the long, porous international boundaries shared across Northeast India, analyze how administrative vacuums in frontier zones complicate internal security management. Suggest robust solutions for improving border security in the region. *(250 Words, 15 Marks)*
- Discuss the role of cross-border linkages, illegal migration, and radicalisation through digital media in influencing the internal security architecture of Assam over recent years. *(150 Words, 10 Marks)*



A future of financial health for every Indian

Nar has been working for 45 years and is one of the longest-serving caddies at his golf club. Although he had a bank account for years, like many informal workers, he was focused on earning a living and supporting his family, leaving little opportunity to plan for the future.

That changed three years ago when he learned about the National Pension System and began saving for retirement for the first time. Today, his fund is growing, giving him confidence that after a lifetime of hard work, he can retire with financial security and dignity.

The meaning of financial health

In June 2026, I visited India in my capacity as the United Nations Secretary-General's Special Advocate for Financial Health. I have been advocating for and learning about efforts to improve financial health, which means ensuring that people have the right financial policies, products, and services to manage day-to-day expenses, stay resilient when unexpected shocks occur, invest in and save for long- and short-term goals, and have confidence in the future.

In practice, this is like Nar's experience – going beyond having a bank account to having investments that will help him in the future. It could also mean a person having affordable home insurance to help if a flash flood causes damage to their house. Or, it could mean receiving responsible credit to help with bills during a tough month.

India has recently undergone a remarkable transformation. According to the World Bank's Global Findex, account ownership among adults has risen from around 56% to 89% in just 10 years. This progress in access is impressive, and it creates an opportunity to do more to support people's financial health.

A financial health approach will be beneficial not just for families but also for the country. Household and individual-level financial health are crucial for country-level resilient growth and prosperity.

The Viksit Bharat 2047 goal to move from



Queen Máxima

of the Netherlands,
is the United Nations
Secretary-General's
Special Advocate for
Financial Health

India's next leap
should be to
ensure financial
health for all

"welfare to wealth creation" would also be well supported by efforts to improve financial health, under the vision of Prime Minister Narendra Modi.

During my visit, I saw how so many in India – from the highest levels of government to pioneering fintech companies – are doing financial health work.

In New Delhi, I spoke with informal sector workers, who are now able to save, plan, and retire without relying on their children, thanks to opening retirement accounts with support from Universal Pensions. In Mumbai, I spoke with nurses at a hospital who have found more financial stability and decreased stress through workplace financial health products offered by SalarySe, such as responsible credit, individualised financial health scores, and insurance.

I met with regulators and bank leaders who are using innovation and Artificial Intelligence (AI) to help households make better financial decisions, grow their savings and investments, build resilience through access to insurance, and tackle challenges such as fraud and scams. Reserve Bank of India Governor Sanjay Malhotra and I discussed how India can expand on these opportunities to support financial health in the country.

Steps to take

In my conversations with Indian people from different walks of life, I heard directly how financial products and services could further build their trust in institutions and give them the support that they need to improve their financial lives. I want to thank the people in Mumbai and New Delhi who shared their stories with me.

Four actions will help move financial health forward:

First, further develop Jan Dhan 2.0 with financial health at the centre. As the Pradhan Mantri Jan-Dhan Yojana (PMJDY) enters its second decade, there is an opportunity to transform accounts from simple payment and cash-withdrawal channels into a household

financial resilience platform. This means fully integrating the PMJDY with Direct Benefit Transfers (DBTs), PM-KISAN, MGNREGA wage payments (now VB-G RAM-G), e-Shram, the Atal Pension Yojana (APY), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), and other social protection schemes for informal and gig workers.

Linking these programmes through a single account could help households build their financial health. Women, who hold the majority of PMJDY accounts, could particularly benefit, as would informal workers, migrants, and gig economy workers.

Second, build on India's robust digital public infrastructure to support better financial health. Innovations such as MahaVISTAAR, account aggregators, the Unified Lending Interface (ULI), DigiLocker, and emerging AI applications create opportunities to strengthen household financial capability, choice and agency at scale.

Third, use India's rich ecosystem of household surveys, administrative datasets, and digital infrastructure to gather data on financial health. This data could be used to strengthen policymaking, protect consumers, and ensure that the financial sector is accountable.

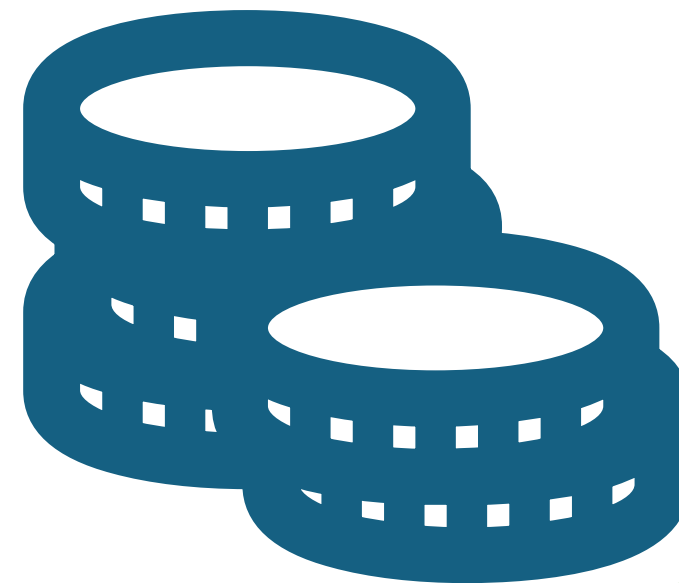
Public-private collaboration

Finally, build on the momentum to further mobilise financial institutions, employers, and market players. Government and regulators play a critical role in advancing households' financial health. The impact is amplified when it is a joint effort with the private sector. Countries including the Netherlands and Indonesia are already pursuing such public-private collaboration.

The vision of financial health is giving every person a better today, tomorrow, and future. Just as Nar should have the opportunity to save for a well-deserved restful retirement, all Indian families should have the financial policies, tools, and services that they need to thrive throughout their lives. After my visit in June, I am looking forward to working with the Government of India to make this vision a reality.

- **Key Terms and Explanations**

- **Financial Health vs. Financial Inclusion:** Financial inclusion is a structural metric representing access (e.g., owning a bank account). Financial health is a qualitative and behavioral state. It means an individual has the tools and financial buffer to manage routine expenditures, bounce back from unexpected crises (like medical emergencies or crop failures), invest in long-term goals, and cultivate psychological security regarding their economic future.
- **Jan Dhan 2.0:** The next evolutionary phase of the Pradhan Mantri Jan-Dhan Yojana (PMJDY). While Jan Dhan 1.0 focused on the massive structural push for universal account access, Jan Dhan 2.0 aims to transform these accounts into comprehensive financial resilience platforms. This involves embedding insurance, credit, and pension systems directly into existing basic accounts.
- **Viksit Bharat–Guarantee for Rozgar and Ajeevika Mission (Gramin) [VB-G RAM-G] Act, 2025:** Coming into force in mid-2026, this legislation repeals and replaces the historic Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005. It elevates the statutory guarantee of rural wage employment from 100 days to 125 days per fiscal year, shifting the programmatic architecture toward centralized funding structures and the creation of highly durable assets aligned with the *Viksit Bharat 2047* vision.
- **Unified Lending Interface (ULI):** A digital platform designed by the Reserve Bank of India to revolutionize credit delivery. Mirroring what UPI did for payments, ULI slashes the time required for loan approvals—particularly for small and rural borrowers—by facilitating the frictionless, consent-based flow of digital information (such as land records, crop data, and identity verifications) from diverse data providers to lenders.
- **MahaVISTAAR:** An advanced, open digital network powered by generative Artificial Intelligence, operating under the Ministry of Agriculture's national VISTAAR framework. It provides voice-first, multilingual, and hyper-localized advisory services to farmers, integrating real-time market data from Agricultural Produce Market Committees (APMCs), weather intelligence, and personalized agronomic insights.
- **Account Aggregator (AA) Network:** A financial data-sharing architecture regulated by the RBI. AAs act as secure digital intermediaries that allow individuals to share their financial data (bank statements, tax records, insurance policies) from one financial institution to another in a completely encrypted, consent-based manner, eliminating physical paperwork and unlocking personalized credit or wealth management tools.



- **Main Arguments and Substantive Parts**

- The analytical core of this discourse revolves around moving from basic institutional access to deep financial empowerment.

- **The Core Thesis**

- Universal banking access is a necessary prerequisite, but it is insufficient on its own to break the cycle of poverty. True economic empowerment requires a deliberate strategy that converts basic accounts into active engines for wealth creation, risk mitigation, and retirement security.

- **Key Pillars and Supporting Evidence**

- **The Quantitative Leap as a Foundation:** Data from the World Bank's Global Findex highlights that India's adult bank account ownership leaped from roughly 56% to nearly 89% within a single decade. This historic scale provides the perfect foundation to deploy advanced financial wellness solutions.

- **Transition from Welfare to Wealth Creation:** Under the long-term governance vision of *Viksit Bharat 2047*, state assistance is evolving. Instead of relying indefinitely on consumption-linked welfare subsidies, the objective is to build household capacity to accumulate capital, invest in productive assets, and achieve financial self-reliance.

- **Fintech and AI-Driven Personalization:** Emerging systems demonstrate that workplace financial health tools (like salary-linked responsible credit, tailored financial wellness scores, and micro-insurance) dramatically decrease employee stress and stabilize household cash flows. AI tools are also being deployed to offer customized advice while actively protecting consumers from digital fraud and predatory scams.

- **Core Challenges and Counterarguments**

- **The Zero-Balance and Dormancy Hurdle:** Despite high account ownership rates, a substantial portion of rural and informal accounts experience prolonged dormancy. True financial health cannot exist if accounts are viewed merely as temporary transit points for withdrawing government cash transfers.

- **Fiscal Decentralization Strain:** Structural transformations in major social security nets—such as the transition from MGNREGA to the VB-G RAM-G Act—introduce a cost-sharing model that places a higher financial burden on state governments. This can strain state budgets, creating spatial disparities in how effectively social safety nets are delivered across the country.



- **Historical Evolution of the Issue**

- The journey of financial democratization in India has transitioned through distinct policy eras, moving from structural institutional expansion to digital-first citizenship.

- The Era of Social Banking & Nationalisation

- 1969 & 1980

- The nationalisation of major commercial banks shifted the Indian banking philosophy from "Class Banking" to "Mass Banking." This era focused on expanding rural bank branches and establishing Priority Sector Lending (PSL) mandates to target agriculture and small-scale industries.

- The Microfinance & Grassroots Revolution

- 1992

- NABARD launched the Self-Help Group-Bank Linkage Programme (SHG-BLP). This historic step combined informal social capital with formal financial institutions, empowering millions of rural women and establishing micro-credit as an effective tool for poverty alleviation.

- The ICT and Business Correspondent Model

- 2005

- The RBI introduced "No-Frills" basic accounts and pioneered the Business Correspondent (BC) framework. This allowed commercial banks to utilize local entrepreneurial agents to deliver banking services directly to the doorsteps of remote villages, bypassing traditional brick-and-mortar limitations.

- The JAM Trinity Paradigm Shift

- 2014

- The launch of the Pradhan Mantri Jan-Dhan Yojana (PMJDY), combined with Aadhaar biometric identification and mobile connectivity, created the JAM Trinity. This foundation enabled India to build the world's largest Direct Benefit Transfer (DBT) delivery framework.

- The India Stack & DPI Explosion

- 2016–2025

- The rapid scale-up of the Unified Payments Interface (UPI), DigiLocker, and the Account Aggregator network democratized instant payments and safe data sharing, shifting India's financial landscape into a highly competitive digital public infrastructure ecosystem.

- The Financial Health & AI Integration Era

- 2026

- Policy priorities shifted completely toward financial health, consumer protection, and retirement dignity. This era is characterized by Jan Dhan 2.0, the implementation of the VB-G RAM-G Act, and the rollout of generative AI tools like MahaVISTAAR to provide personalized economic buffers.



INDIA'S JOURNEY TO TOTAL FINANCIAL HEALTH: A UPSC/APSC ANALYSIS

THE TRANSITION: Inclusion -> Health

FINANCIAL INCLUSION (Structural Access)



- Simple access
- Global Findex ~89% account ownership
- Basic account access
- Cash transit points
- Foundational focus

FINANCIAL HEALTH (Qualitative Resilience)



- Manage daily expenses
- Resist shocks (flash flood, health)
- Save for short/long-term goals
- Cognitive security

THE TRANSITION: Health

FINANCIAL INCLUSION (Structurs)

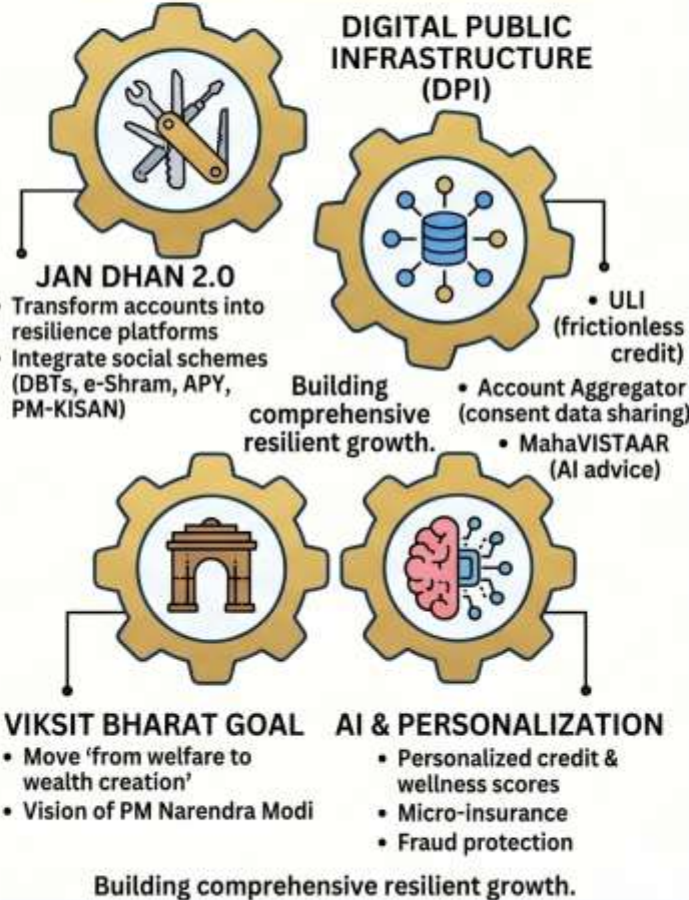
- Global Findex access
- ~89% account ownership

RESANCIAL

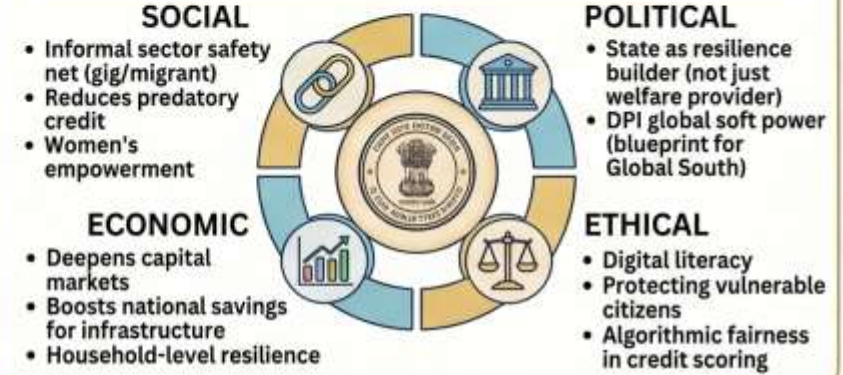
- A path: a simple accounts to active wealth creation.

A path from simple to active wealth creation machines.

CORE EVOLUTION PILLARS



MULTIDIMENSIONAL IMPACT ANALYSIS



WAY FORWARD: BUILDING TOTAL FINANCIAL HEALTH



- **Logical and Philosophical Base**
- **The Shift from Paternalism to Capability**
 - Historically, financial inclusion policies operated on a paternalistic model, treating the citizen as a passive beneficiary of state welfare. The contemporary financial health philosophy builds directly on Amartya Sen's **Capability Approach**. It views financial instruments not as commodities, but as vital capabilities that grant citizens the freedom to lead lives they value. A retirement fund or an insurance policy provides a baseline of dignity, removing the structural anxiety of unexpected poverty.
- **Rational Choice Theory under Digital Scarcity**
 - The transition assumes that informal workers are rational economic actors who want to plan for the future but are often limited by transaction costs, information asymmetry, and cognitive overload from daily survival. By using Digital Public Infrastructure (DPI) to reduce transaction costs to near-zero and using AI to simplify complex financial options, the state creates an environment where long-term planning becomes an accessible option rather than a luxury.



- **Multidimensional Analysis**

- **Social Dimension**

Financial health serves as an equalizer across social hierarchies. The informal workforce—including gig workers, domestic help, and migrant laborers—frequently lacks institutional safety nets. Providing them with access to micro-pensions and health insurance reduces their dependence on exploitative, informal credit networks. Furthermore, because women hold a significant majority of Jan Dhan accounts, centering these platforms around financial health builds long-term gender empowerment, giving women greater control over household savings and capital.

- **Political Dimension**

The policy shift from "welfare delivery" to "wealth creation" changes the relationship between the citizen and the state. It repositions the state from a provider of short-term relief to a builder of long-term economic resilience. This supports the broader governance vision of *Viksit Bharat*, shifting public expectations toward high-quality regulatory oversight, robust consumer data protection, and digital public infrastructure.

- **Legal and Statutory Dimension**

The transition from MGNREGA to the statutory framework of the VB-G RAM-G Act, 2025, reflects an evolving legislative approach to social security. However, this evolution introduces new regulatory challenges. Merging complex social welfare payment systems into single financial platforms requires updated consumer protection laws to prevent unauthorized automated deductions and ensure clear, consent-based data usage under current data protection frameworks.

- **Ethical Dimension**

At its core, this issue addresses the ethics of distributive justice. Leaving vulnerable segments of the population exposed to predatory lending or financial scams after introducing them to digital systems presents a significant ethical challenge. Ensuring algorithmic fairness in AI-driven credit scoring systems and protecting less digitally literate citizens from fraud are vital responsibilities for a just and inclusive state.

- **International Dimension**

India's Digital Public Infrastructure (DPI) model—often called the "India Stack"—has become a key component of its global soft power and economic diplomacy. By demonstrating a successful transition from basic financial access to full-scale financial health, India offers a scalable, cost-effective blueprint for the Global South, establishing itself as a global leader in inclusive financial governance.

- **Economic Dimension**

At the macroeconomic level, improved household financial health alters national savings patterns by converting informal cash holdings into formal, long-term financial assets like pensions and mutual funds. This deepens domestic capital markets, providing stable funding for national infrastructure projects. At the microeconomic level, access to structured credit and insurance helps families maintain stable consumption patterns during downturns, reducing the risk of vulnerable households falling back into absolute poverty.

- **Linkages with NCERT Textbooks**
- **Class 9 Economics – Chapter 3: "Poverty as a Challenge":** This chapter introduces the concept of vulnerability and the chronic nature of poverty. Analyzing financial health directly addresses how safety nets like micro-pensions prevent vulnerable families from falling back below the poverty line due to unexpected economic shocks.
- **Class 11 Economics – "Indian Economic Development" (Unit 3: Employment & Current Challenges):** This text covers the growth of the informal sector and the lack of social security for casual labor. The evolution from MGNREGA to the VB-G RAM-G Act offers an excellent modern case study in legislative attempts to address rural underemployment and build durable infrastructure.
- **Class 12 Political Science – "Politics in India Since Independence" (Chapter on Development Trajectories):** This chapter details the historical shifts in India's economic models, from early state-led planning to the 1991 liberalization reforms. It provides context for the current evolution toward an AI-supported, market-driven financial citizenship model under *Viksit Bharat*.

Paper	Specific Syllabus Section	Core Analytical Intersection
GS Paper II	Governance, Social Justice, Welfare Schemes for Vulnerable Sections	Evaluates the integration of social safety nets (APY, PMJJBY) with basic banking via Jan Dhan 2.0.
GS Paper III	Indian Economy, Inclusive Growth, Mobilization of Resources, Technology in Agriculture	Covers the evolution of financial inclusion into financial health, digital infrastructure (ULI, AA), and AI-driven agricultural tools like MahaVISTAAR.
GS Paper IV	Ethics and Human Interface, Corporate Governance, Fairness in Public Delivery	Addresses ethical responsibilities in consumer protection, avoiding algorithmic bias in AI credit scoring, and protecting users from digital fraud.
Essay Paper	Economic Models, Social Empowerment, Future of Technology	Provides material for themes focused on transitioning from welfare dependency to self-reliance, or technology as an equalizer.

- **Way Forward**

- **Comprehensive Social Security Integration**

- The transition to Jan Dhan 2.0 should serve as a single, integrated portal for household financial resilience. This can be achieved by linking basic accounts with existing social protection schemes, including direct benefit transfers, rural employment wages under the VB-G RAM-G Act, and informal worker platforms like e-Shram. Merging these streams into a single account allows households to automate micro-savings, buy affordable life insurance, and contribute to retirement funds seamlessly.

- **Enhancing Credit Accessibility through the ULI**

- The rollout of the Unified Lending Interface (ULI) must be accelerated to bring credit access to small and marginal enterprises, gig workers, and tenant farmers. By securely connecting agricultural data, land records, and digital transaction histories, the ULI can substantially lower underwriting costs for banks, helping break the reliance on informal, high-interest moneylenders.

- **Constructing a Uniform Financial Health Index**

- India should develop a standardized, data-driven Financial Health Index by leveraging its extensive administrative data and national household surveys. This framework would allow the RBI and financial institutions to measure financial wellness across different demographics and regions, moving beyond simple metrics like the number of open accounts to track active financial resilience.

- **Fostering Regulated Public-Private Partnerships**

- Advancing national financial health requires strong collaboration between state regulators and private innovators. The public sector can maintain secure digital public infrastructure networks, while private fintech companies and employers can design user-friendly, workplace-based financial wellness products. This combination of public infrastructure and private innovation can deliver tailored budgeting tools, micro-investment platforms, and robust fraud prevention systems at scale.



UPSC CSE Prelims Questions

1. With reference to the 'National Pension System (NPS)', which of the following statements is correct? (2023)

1. (a) It is handled by the Insurance Regulatory and Development Authority.
2. (b) It is open only to government employees.
3. (c) All citizen of India can join NPS up to the age of 65 years.
4. (d) NPS is mandatory for all central government employees who joined service before 1st January 2004.

2. With reference to 'Pradhan Mantri Jan-Dhan Yojana (PMJDY)', consider the following statements: (2015)

1. It envisions universal access to banking facilities with at least one basic banking account for every household.
2. It provides an inherent accident insurance cover and an overdraft facility.

1. Which of the statements given above is/are correct? (a) 1 only; (b) 2 only; (c) Both 1 and 2; (d) Neither 1 nor 2.

UPSC CSE Mains Questions

1. *“Financial inclusion is a necessary but not a sufficient condition for poverty alleviation and income security.”* In light of this statement, critically analyze the transition needed from simple account access to comprehensive financial health for informal sector workers in India. **(GS Paper III, 2024 Theme)**

2. Explain how the 'JAM Trinity' (Jan Dhan, Aadhaar, and Mobile) has transformed the nature of welfare delivery and financial governance in rural India. What structural changes are further required to achieve long-term wealth creation by 2047? **(GS Paper III, 2021)**

3. The performance of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has been widely debated. How does its legislative successor, the VB-G RAM-G Act, attempt to balance asset creation with rural livelihood security, and what are its fiscal implications for center-state relations? **(GS Paper II/III, 2026 Theme)**



CHANDRASEKAR K
NAREN PRASAD

India's economy has demonstrated remarkable resilience, maintaining strong growth despite global economic uncertainties.

According to the IMF's World Economic Outlook (April 2026), India's GDP is projected to grow by 6.5 per cent in 2026-27. National Statistics Office of MoS&PI data also show that India's economy recorded a CAGR of 8.56 per cent between 2021 and 2025, reflecting a robust post-pandemic recovery and sustained economic momentum.

While these macroeconomic indicators are encouraging, a critical question remains: Is economic growth translating into adequate employment opportunities? The challenge is particularly significant for women and educated youth, who continue to face barriers in accessing quality jobs.

The Periodic Labour Force Survey 2025 report unambiguously reveals both encouraging signs and a reminder that significant work remains.

WOMEN'S WORK

The Female Labour Force Participation Rate (FLFPR) increased to 30.7 per cent in 2025 from 25.4 per cent in 2022; similarly, the Worker Population Ratio (WPR) rose to 29.8 per cent in 2025 from 24.6 per cent in 2022. It clearly reveals that more women are either working or actively seeking work than earlier.

Despite this progress, women's participation is considerably higher in rural areas (34.6 per cent) than in urban areas (22.2 per cent), indicating that urban women's contribution to the labour market remains limited. The challenge is even clearer among young people, with urban female unemployment (15-29 years) at 18.9 per cent, significantly higher than the 11.8 per cent for urban males.

In rural areas, nearly 70.7 per cent of employed women are self-employed, and only 9.3 per cent are in regular salaried jobs, mainly in agriculture, family enterprises and home-based activities.

While self-employment supports livelihood, it is often associated with lower productivity, income insecurity and limited career growth. Overall, higher participation does not automatically translate into quality employment.

India has made great progress in education, especially for girls and young women. Notably, the Female Gross Enrolment Ratio (GER) has improved at the higher secondary level of education, rising to 60.9 per cent in 2024-25 from 54.6 per cent in 2020-21, which surpassed the Male GER of 56.2 per cent, that means once a female student clears class 10, she is statistically more likely to pursue higher education than her male peers.



India's growth story needs more women at work

TAKING CARE. To fully tap women's work potential the government must invest in the care economy

Similarly, at the higher education level, the Female GER increased to 30.2 per cent (provisional) 2022-23 from 27.9 per cent in 2020-21.

These statistics clearly signal that more girls are entering higher education than ever before, and the challenge has therefore moved to ensuring meaningful economic returns from education. Despite steadily improving educational attainment, urban female labour force participation remains low, and youth unemployment among women remains elevated, pointing to a growing gap between education and employment.

Recognising this challenge, the Union Budget 2026-27 announced the Education-to-Employment-and-Enterprise (EEE) Committee under NITI Aayog, even before the PLFS report was published. The committee held its first meeting on May 22, focusing on strengthening linkages between EEE and assessing the impact of emerging technologies, including AI, on future jobs.

The initiative highlights that expanding educational opportunities is only the first step, and its benefits depend on successful transitions into

productive employment, with the growing importance of aligning women's skills with labour market needs.

ENABLING PARTICIPATION

Yet employment opportunities alone may not fully explain the gap between educational attainment and workforce participation, particularly for women. More women are educated, but workforce participation remains low. It is worth considering what other factors might be holding them back, including caregiving responsibilities, workplace flexibility, safety, transportation, etc.

Unpaid caregiving work is particularly significant, as it directly affects women's ability to enter, remain in and progress within the labour market. Across the world, women continue to bear more caregiving responsibilities.

According to the ILO, women perform more than three-quarters of all unpaid care work, and around 708 million women globally are outside the labour force due to unpaid caregiving responsibilities. This challenge is becoming even more important in urban India.

The Time Use Survey 2024 also reported that females spent 289 minutes on unpaid domestic and 137 minutes on caregiving activities for household members. Today, many families live in nuclear households, often far from their extended family. As a result, working parents, especially mothers, must shoulder much of the care burden. As long as unpaid care work remains heavily feminised, advances in employment and productivity will

remain uneven and fragile.

Countries such as Sweden, Denmark and Japan have responded to this challenge by investing in the "care economy", which includes caregiving responsibilities of children and the elderly.

While India's demographic and fiscal circumstances differ significantly, their experience shows that affordable and accessible care services can support female workforce participation.

The challenge is not only about creating employment opportunities but also about ensuring women can access them. Converting educational gains into economic gains, investing in the care economy is one of the smartest investments India can make.

GROWTH WITH INCLUSION

India's economic outlook remains strong. However, the next phase of India's growth will be shaped not only by the pace of economic expansion, but also by how widely its opportunities are shared. While growth, investment and structural reforms provide a solid foundation, converting educational gains into productive employment and enabling women to participate fully in the workforce are important goals.

Investing in the care economy is not merely a social welfare measure; it is an economic strategy that can unlock human capital, increase productivity and advance India's vision of inclusive and women-led development.

Chandrasekar is Joint Director in MoS&PI, Prasad is Head of Education & Training, ILO's Research & Statistics Department. Views expressed are personal

- **Key Terms and Explanations**
- **Female Labour Force Participation Rate (LFPR):** This metric represents the percentage of the female working-age population (typically 15 years and older) that is either actively employed or seeking employment.
 - *Simple Example:* If a neighborhood has 100 women of working age, and 30 are employed while 5 are actively looking for a job, the female LFPR is 35%. The remaining 65 women—who might be students, homemakers, or retired—are considered outside the labor force.
- **Worker Population Ratio (WPR):** WPR is defined as the percentage of the total population that is actively employed. While LFPR includes both the employed and those looking for work, WPR focuses strictly on those who have secured employment. A widening gap between LFPR and WPR highlights a rise in unemployment.
- **The Care Economy:** This encompasses both paid and unpaid activities related to provisioning care for children, the elderly, the sick, and working adults. It includes daily domestic chores, emotional support, and caregiving. When these activities are performed within the household without financial compensation, they are categorized as unpaid care work.
- **Gross Enrolment Ratio (GER):** A statistical measure used in education to determine the number of students enrolled in a specific level of education, regardless of age, expressed as a percentage of the official school-age population for that level. A female GER exceeding male GER at the higher secondary level indicates that girls are transitioning out of primary education and staying in school longer than boys.
- **Time Use Survey (TUS):** A specialized statistical survey that measures how individuals spend their time across various activities during a 24-hour day. It provides quantitative data on time allocated to paid work, unpaid housework, caregiving, leisure, and self-care, exposing systemic gender disparities in time poverty.
- **Compound Annual Growth Rate (CAGR):** The geometric progression ratio that provides a constant rate of return over a specific time period, smoothing out annual fluctuations. It reflects the steady velocity of economic recovery or expansion over consecutive years.
- **Feminization of Unpaid / Agrarian Labor:** A structural phenomenon where women are increasingly concentrated in subsistence agriculture, unpaid family enterprises, or home-based piece-rate work. This usually happens because men migrate to urban areas for casual labor, leaving women to manage low-productivity work without formal contracts or financial independence.

- **Main Arguments and Substantive Parts**

- The core structural challenge facing the Indian economy is not a lack of macroeconomic momentum, but rather an ongoing friction in translating high GDP growth into inclusive, high-quality employment for women.

- **The Growth-Employment Disconnect**

- India's economy has displayed exceptional post-pandemic resilience, maintaining a high growth trajectory with a CAGR exceeding 8.5% in recent years and a projected GDP expansion of around 6.5%. However, this robust macroeconomic performance reveals a persistent paradox: rapid economic growth is not generating a corresponding volume of formal, high-quality jobs. This structural gap disproportionately affects women and educated youth, who face significant barriers to entering the formal job market.

- **The Urban-Rural Divergence and the Self-Employment Trap**

- While overall female LFPR has shown upward movement, reaching over 30%, a deeper look reveals a sharp geographic divide. Female participation is noticeably higher in rural areas (approaching 35%) than in urban centers (hovering around 22%).

- **Rural Dynamics:** The higher rural participation rate is largely driven by economic necessity. Nearly 71% of employed rural women are self-employed, primarily absorbed by agriculture, family farms, and low-yield home enterprises. Only a small fraction (under 10%) secure regular salaried positions.

- **The Vulnerability Factor:** This high rate of self-employment often masks underemployment. It leaves women vulnerable to income insecurity, low productivity, and minimal career growth, demonstrating that increased participation does not automatically mean better jobs.

- **The Education-to-Employment Paradox**

- India has successfully closed the gender gap in educational attainment. At the higher secondary level, the female Gross Enrolment Ratio (around 61%) has surpassed the male ratio, and enrollment in higher education continues to rise steadily.

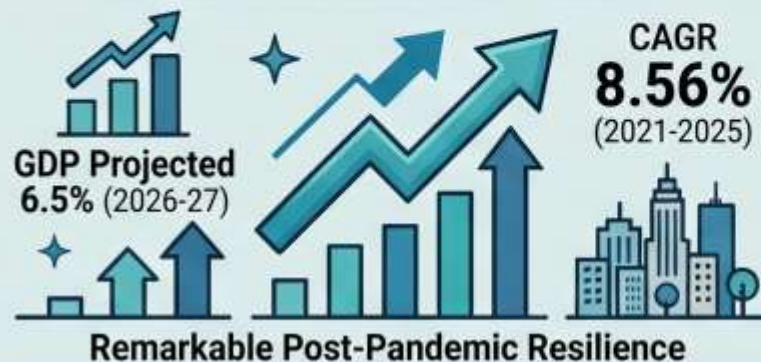
- Logically, higher education should lead to increased employment. Instead, India faces an inverted curve: urban female youth unemployment stands at a high 18.9%, far outpacing male youth unemployment (11.8%). This gap indicates that structural roadblocks are preventing young, educated women from successfully transitioning from the classroom to the formal workplace.

- **Historical Evolution of the Issue**
- **Pre-Independence Era**
 - In India's traditional agrarian economy, women's work was deeply integrated into family farm structures. While their physical labor was extensive—spanning sowing, harvesting, and livestock management—it was largely unrecorded and subsumed under household labor. Formal employment was rare, and social norms tightly restricted female mobility outside the immediate community or family network.
- **Early Post-Independence (1950s–1960s)**
 - During the early decades of planned economic development, public policy viewed women primarily through a welfare lens rather than as independent economic agents. The first few Five-Year Plans focused heavily on maternal and child health, nutrition, and basic literacy. Women were treated as passive beneficiaries of family welfare, and state planning did not systematically address their integration into the industrializing labor market.
- **The 1970s Turning Point**
 - The publication of the landmark **"Towards Equality" Report (1974)** by the Committee on the Status of Women in India radically shifted the discourse. The report provided empirical evidence of declining female labor force participation, widening wage gaps, and systemic marginalization. This forced the state to shift its approach from pure welfare to development, leading to targeted employment and training programs in the Fifth and Sixth Five-Year Plans.
- **Post-1991 Liberalization and the Service Sector Boom**
 - The opening of the Indian economy in 1991 transformed the urban labor market. The rapid growth of Information Technology (IT), IT-enabled Services (ITeS), banking, and retail sectors opened up formal employment opportunities for educated urban women.
 - However, this trend also widened the gap between a small segment of highly skilled urban women and the vast majority of rural and informal female workers, who remained trapped in low-productivity agricultural work.
- **The 2000s–2010s: Rights-Based Legislative Approach**
 - This era saw a transition toward rights-based legal frameworks designed to support and protect working women:
 - **MGNREGA (2005):** Provided a legal guarantee of 100 days of wage employment, mandating that at least one-third of jobs go to women and ensuring equal wages. This substantially increased rural female participation.
 - **Maternity Benefit Amendment Act (2017):** Increased paid maternity leave from 12 weeks to 26 weeks and introduced a crèche mandate for firms with 50 or more employees. While intended to support mothers, it also inadvertently made some private employers hesitant to hire women due to the compliance costs.
- **The 2020s: Focus on the Care Economy and Tech Transitions**
 - Today, policy discussions increasingly recognize that creating jobs is only half the battle; the state must also build the supportive infrastructure needed to access them. The deployment of the Time Use Survey has brought the issue of unpaid care work to the forefront. Initiatives like NITI Aayog's **Education-to-Employment-and-Enterprise (EEE) Committee** reflect a modern focus on aligning women's skills with an AI-driven economy while addressing the care infrastructure gap.

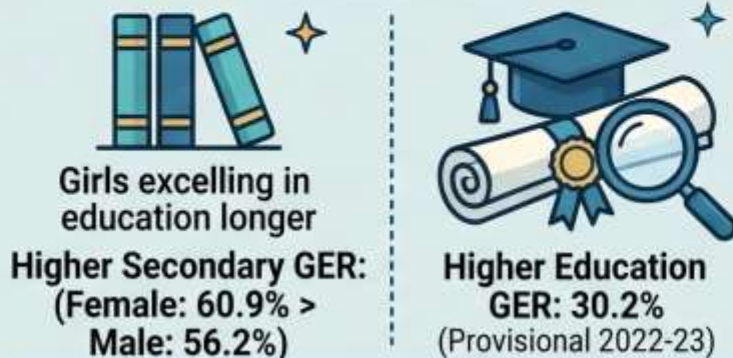
THE GENDER DIVIDEND: BRIDGING EDUCATION & EMPLOYMENT FOR INCLUSIVE GROWTH

A Comprehensive Analysis for UPSC CSE Preparation

INDIA'S ROBUST GROWTH STORY



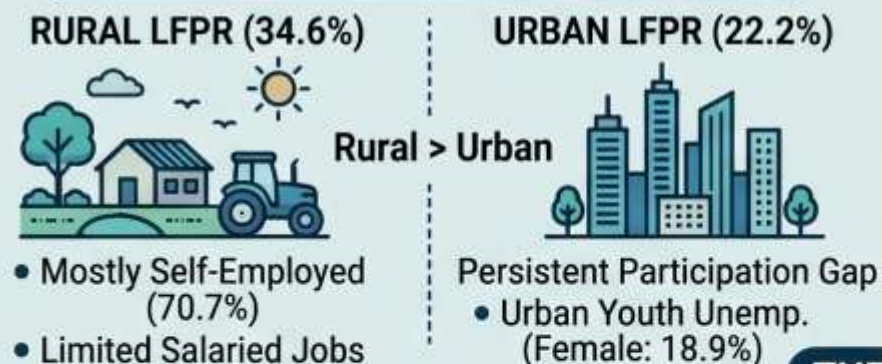
THE EDUCATION PARADOX



THE EMPLOYMENT GAP & CHALLENGES



RURAL vs. URBAN FEMALE LFPR (2025)



THE CENTRAL CONSTRAINT: UNPAID CARE WORK



THE WAY FORWARD: INVESTING IN THE CARE ECONOMY



- **Logical and Philosophical Base**

- **Amartya Sen's Capability Approach**

- The core argument for increasing female labor force participation is deeply aligned with Amartya Sen's **Capability Approach**. This framework argues that development should be measured by the expansion of human freedoms and capabilities rather than simple GDP growth.

- Education acts as an "instrumental capability" that gives women knowledge. However, if structural barriers like unsafe public spaces or heavy caregiving burdens prevent a woman from seeking employment, her capability fails to translate into a "functioning" (the actual freedom to pursue a career). True economic empowerment requires removing these social and structural constraints.

- **The Social Contract and Public vs. Private Spheres**

- Philosophically, the care deficit highlights a flaw in the classic liberal social contract, which splits society into a public sphere (politics, commerce, wage labor) and a private sphere (family, domestic care).

- Historically, economic models have treated the private sphere as a free, self-sustaining resource. Modern feminist economics challenges this assumption, showing that the public economy depends directly on the unpaid care labor performed within the private sphere. Failing to value this labor results in an incomplete economic model that penalizes the caregivers.

- **Arlie Hochschild's "Double Burden" Concept**

- The analysis builds on the concept of the **"Second Shift"** or the double burden. When women enter the formal workforce without a redistribution of domestic responsibilities or institutional support, they end up working two full-time jobs: one paid, one unpaid. The logic here is clear: as long as unpaid domestic labor is seen as exclusively women's work, advances in female education will continue to clash with the reality of time poverty, forcing women to make unfair trade-offs between family and career.

- **Multidimensional Analysis**
- **Social Dimension**
 - **Patriarchal Norms and Stigma:** In many traditional communities, a woman working outside the home can be perceived as a sign of economic distress for the family, implying that the husband cannot provide on his own. As family incomes rise, there is often a trend where women withdraw from agricultural labor to signal higher social status.
 - **Safety, Sanitation, and Mobility:** The decision to enter the workforce is heavily influenced by the safety of public spaces, the availability of secure transport, and access to proper sanitation facilities. Concerns over safety during commutes create a physical barrier that limits women's employment choices to a narrow geographic area around their homes.
- **Political Dimension**
 - **From Welfare Recipients to Economic Leaders:** For decades, political campaigns treated women primarily as a welfare voting bloc, focusing on targeted cash transfers, subsidized cooking gas, or rations. There is a growing political shift toward treating women as active economic leaders, focusing on entrepreneurship, skill development, and financial inclusion.
 - **Policy Prioritization of the Care Infrastructure:** The creation of advisory bodies like NITI Aayog's Education-to-Employment-and-Enterprise (EEE) Committee indicates that female economic participation is becoming a core political priority, moving from social welfare departments directly into economic planning agencies.
- **Legal Dimension**
 - **The Maternity Benefit Compliance Dilemma:** While extending paid maternity leave to 26 weeks was a significant step forward for labor rights, it created an unintended hurdle in the private sector. Because employers bear the full financial cost of this leave, it has created a hiring bias against women of marriageable age, particularly in small businesses and startups.
 - **The Need for Formalization:** Over 90% of working women in India remain in the informal sector, leaving them outside the protection of key laws like the **POSH Act (Prevention of Sexual Harassment at Workplace)** and minimum wage guarantees. Extending legal protections to home-based, domestic, and care workers remains a critical legislative challenge.
- **Ethical Dimension**
 - **The Injustice of Unpaid Labor:** Expecting women to perform over three-quarters of a society's unpaid care work without institutional support or social recognition is an ethical issue of fairness. It systematically deprives women of leisure, personal development, and financial independence.
 - **Addressing Time Poverty:** Time is a finite resource. When a woman spends over 7 hours a day on unpaid chores and caregiving, she experiences chronic time poverty. Ethically, a fair society must ensure that care burdens are shared more equitably, rather than letting them limit a single gender's life choices.
- **International Dimension**
 - **Aligning with Sustainable Development Goals (SDGs):** Unlocking female workforce potential is essential for India to meet its commitments under **SDG 5 (Gender Equality)** and **SDG 8 (Decent Work and Economic Growth)**.
 - **Learning from Global Models:** Countries like Sweden, Denmark, and Japan have successfully stabilized or raised female labor force participation by investing heavily in public care infrastructure. These nations demonstrate that treating childcare and eldercare as essential public services, rather than private family obligations, yields positive economic returns.
- **Economic Dimension**
 - **Unlocking a Massive GDP Opportunity:** Multiple global macroeconomic studies suggest that closing the gender employment gap could add over \$1.4 trillion to India's GDP. Leaving a large share of educated women out of the workforce represents a substantial underutilization of human capital.
 - **Maximizing the Demographic Dividend:** India is currently in a unique historical window with a large, young working-age population. However, this demographic dividend cannot be fully realized if nearly half of the youth cohort faces structural barriers to entering productive employment.

- **Linkages with NCERTs**
- **Class 11 Economics: *Indian Economic Development***
- **Chapter: "Employment: Growth, Informalisation and Other Issues"**
 - *Connection:* This chapter defines key workforce concepts like LFPR, WPR, and formal vs. informal employment. It explores the structural shift from agriculture to services and addresses the persistent issue of jobless growth. Understanding these basics is essential for analyzing why rising GDP does not automatically create high-quality employment for women.
- **Class 12 Sociology: *Social Change and Development in India***
- **Chapter: "Structural Change" & "Cultural Change"**
 - *Connection:* These chapters examine how the rise of nuclear families, urban migration, and shifting caste and class dynamics influence female labor. They provide the necessary context for understanding how social status can lead families to withdraw women from manual labor as household incomes rise.
- **Class 10 Social Science: *Democratic Politics-II***
- **Chapter: "Gender, Religion and Caste"**
 - *Connection:* This chapter introduces students to the concept of the sexual division of labor and explains how unpaid domestic work restricts women's roles in public life and politics. It serves as an introductory foundation for analyzing modern Time Use Surveys.



- **Linkages with UPSC CSE Syllabus**
- **General Studies Paper 1 (GS1)**
 - **Topic:** *Effects of globalization on Indian society; Social empowerment; Role of women and women's organizations; Population and associated issues.*
 - *Application:* Analyzing how the transition to urban nuclear households has removed traditional family care support systems, creating a distinct urban care deficit that lowers female LFPR.
- **General Studies Paper 2 (GS2)**
 - **Topic:** *Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.*
 - *Application:* Evaluating policy interventions like the Maternity Benefit Act, public crèche programs, and NITI Aayog's EEE Committee framework to bridge the gap between educational access and economic employment.
- **General Studies Paper 3 (GS3)**
 - **Topic:** *Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment; Inclusive growth and issues arising from it.*
 - *Application:* Examining the structural mismatches in the labor market, the high rate of informal self-employment among women, and the economic value of formalizing and investing in the care economy to boost potential GDP.
- **General Studies Paper 4 (GS4)**
 - **Topic:** *Human Values; Ethics and Human Interface; Consequentialism vs. Deontology in policy planning; Distributive Justice.*
 - *Application:* Assessing the ethical dimensions of time poverty and the gendered division of labor. This involves using frameworks of social justice to argue that economic policy should treat unpaid care infrastructure as a matter of fundamental fairness and equity, rather than just an optional welfare measure.





- **Way Forward**
- **Building National Care Infrastructure**
- **Public-Private Partnership (PPP) Crèche Networks:** The state should expand the Anganwadi network under Mission Shakti to include robust, full-day childcare options in rural areas. In urban centers, a hub-and-spoke model funded through corporate social responsibility (CSR) and public subsidies can provide working parents with affordable, reliable childcare.
- **Standardized Eldercare Services:** With changing demographics and a growing elderly population, investing in professional home care networks and senior day-care centers can help reduce the caregiving responsibilities that often fall on women.
- **Refining Regulatory and Fiscal Policies**
- **Shared Costs for Maternity Benefits:** To prevent hiring biases against women in the private sector, India could move away from a model where employers pay the full cost of maternity leave. Transitioning to a social security fund or a shared risk pool—where the government and employers split the cost—can make hiring women more balance sheet-neutral for small businesses.
- **Tax Incentives for Gender Parity:** Introducing targeted tax incentives for businesses that maintain a balanced gender ratio and offer flexible work arrangements can encourage companies to proactively retain female talent.
- **Enhancing Urban Safety and Mobility**
- **Integrated Public Transport Safety:** Enhancing urban safety requires more than just installing CCTV cameras. Cities should prioritize well-lit walking paths, reliable and affordable public transit options, and gender-sensitized transit workers. Programs that offer subsidized or free transit passes for women can help expand their safe commuting radius.
- **Urban Housing and Hostel Infrastructure:** Building networks of safe, subsidized working women's hostels in major industrial and urban zones can lower the entry barriers for young women migrating from rural areas for work.
- **Formalizing and Elevating the Care Sector**
- **Professionalizing Care Work:** Transforming domestic and caregiving work into formalized employment with standardized minimum wages, maximum working hours, and social security access can accomplish two goals at once. It will improve job security for care workers while giving working families access to regulated, professional services.
- **Skill Alignment via the EEE Committee:** NITI Aayog's Education-to-Employment-and-Enterprise framework should actively focus on training women for fields like digital literacy, advanced healthcare, and technical industries, ensuring that female workforce readiness aligns with an evolving economic landscape.

Civil Services Examination (UPSC) - Selected Questions

Prelims Questions

1. With reference to the Per Capita Income (PCI) and Female Labour Force Participation Rate (LFPR) in India, consider the following statements:

- 1. A continuous rise in economic growth always leads to a linear, proportional increase in the female LFPR in urban areas.
- 2. The Time Use Survey conducted by the government systematically measures the hours spent by citizens on unpaid domestic and caregiving activities.

2. Which of the statements given above is/are correct?

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

3. Answer: (b) Statement 1 is incorrect because India’s female LFPR has historically exhibited a U-shaped or non-linear relationship with economic growth, often showing low participation in urban areas despite rising incomes due to structural and social factors. Statement 2 is correct as the Time Use Survey explicitly tracks unpaid care and domestic workloads.

4. Which of the following authorities compiles the data on Periodic Labour Force Surveys (PLFS) in India?

- 1. (a) NITI Aayog
- 2. (b) National Statistical Office (NSO), Ministry of Statistics and Programme Implementation
- 3. (c) Labour Bureau, Ministry of Labour and Employment
- 4. (d) Reserve Bank of India

5. Answer: (b) The National Statistical Office (NSO), under MoS&PI, is the nodal agency responsible for conducting and releasing the Periodic Labour Force Survey.

Mains Questions

- "Economic growth in recent years has been robust, yet gender inclusivity in the workforce remains a persistent challenge." Evaluate the structural barriers that hinder Indian women from converting educational gains into formal sector employment. *(GS Paper III, 2024 - 15 Marks)*
- How does unpaid care work affect women's economic empowerment and time poverty in India? Discuss the utility of investing in a structured 'care economy' to achieve Sustainable Development Goals. *(GS Paper II, 2025 - 10 Marks)*
- "The demographic dividend of India cannot be fully realized without a significant structural turnaround in female labor force participation." Critically analyze this statement in light of rural-urban divergence in employment quality. *(GS Paper III, 2023 - 15 Marks)*
- Distinguish between the welfare-centric approach and the development-centric approach towards women's empowerment in post-independence Indian planning. *(GS Paper I, 2019 - 10 Marks)*

Next leap will come from bringing AI and digital public infrastructure together



MANISH SABHARWAL
AND RAVI BAPNA

THE FAILURE of multiple visits by the Japanese government to 111-year-old Sogen Kato's house to honour him — he was never home — had a simple explanation. He had been dead for 30 years while his family collected his pension. This triggered a national investigation that identified 3 lakh people who were assumed to be "living" but were dead. India's Aadhaar programme has reduced such pension scandals, improved the efficiency of government spending (up 117 times since 1991), and catalysed digital payments (42 per cent of the world's transactions). The next orbit for digital public infrastructure (DPI) lies in AI integration — it will raise state capacity and empower the new tone from the top on Jan Vishwas.

The last few years have been tough for Indian tech. We don't have a credible horse in the AI generation race, DeepSeek came out of China, and automated code generation has blunted the employment outlook for software services. But a recent conference at the National Council of Applied Economic Research (NCAER) suggested optimism about this digital revolution of AI for three reasons. India is the world's largest natural data laboratory. Integrating DPI with AI could be the biggest reimagination of the

Indian state since 1947. And AI deployment may be more employment-generative than AI generation. Let's look at all three in detail.

First, India has gone from data poor to data rich in just 10 years because of three bold acts of entrepreneurship in 2016: Jio, UPI, and GST. For decades, India's economic policy relied on periodic surveys and delayed, uneven and incomplete administrative data. But now, DPI's digital exhaust makes us the world's largest natural data laboratory for financial inclusion, welfare targeting, enterprise formalisation, platform economics and digital governance. UPI's monthly 23 billion transactions create one of the world's largest behavioural datasets. GST's 20 crore payments create real-time visibility into supply chains, invoicing, production and consumption. FASTag's 4.5 billion payment transactions create mobility and logistics datasets at scale. And, more than 27 billion annual Aadhaar authentications enabled a 16-fold expansion in direct benefit transfer beneficiaries. For the first time, a developing country is using population-scale digital data to accelerate development rather than waiting for conventional statistical systems to catch up. The job is hardly done — rigorous academic research, well-funded think tanks to bridge theory and practice, and open public data commons are just emerging — but the future seems very different from the past.

Second, India's political reimagination since 1947 has created the world's largest democracy on the infertile soil of the world's most hierarchical society. But why didn't we create the world's largest economy? Besides the delusional 1956 Second Five-Year Plan, weak state capacity

is another suspect in our failed transition from farm to non-farm jobs. Historically, governments increased state capacity through more administrative structures and personnel (government spending has increased 53,000 times since the 1947 budget of Rs 198 crore). DPI enables better resource allocation, improved service delivery, earlier fraud detection, and quicker responses. But a reimagined citizen interface has been blunted by a lack of interoperability (digital silos are stronger than physical silos), the government's internal technology capacity, and a mentality that seems to be satisfied with PDFs, when the aim should be for APIs. AI's capacity to use unstructured data will help us leapfrog data integration and the interoperability challenges within our strong consent architecture and the recently articulated principles of Jan Vishwas Siddhant. Multiple language interfaces will open up labour and education markets, and AI will improve public health expenditure. India will be the first large country to integrate AI into population-scale DPI — America built AI on private-sector data ecosystems, and China built AI on platform-centric digital ecosystems. DPI without AI is infrastructure, and AI without DPI is intelligence. AI plus DPI is enhanced state capacity.

Finally, India's angst about AI's impact on jobs is understandable if it ends up with the winner-take-all characteristics of search or the fiery nationalism that halts access to frontier models — the recently-revoked restrictions on frontier AI models such as Claude 5, for instance. But deploying AI in the daily lives of citizens and companies requires more ingenuity, organisational savviness, and

human capital than AI generation itself does. You don't have to build a car to drive it; let's build the roads (AI applications) that get people to extract economic and social value. The deployment of AI in DPI could make India the use-case capital of the world, not unlike the American state that used defence spending during the Cold War to catalyse Silicon Valley. India's enterprise DPI, currently under implementation (universal enterprise number, entity digilocker, API Setu, single source of truth for regulation), could potentially combine with a Universal Lifetime Social Security Account for every citizen (Aadhaar *punji*) to unleash a revolution in formalisation similar to what NPCI did in payments (private innovation on a non-profit layer). This would reduce information asymmetry, lower transaction costs, improve credit allocation and worker-job matching, enhance supply chain and logistics efficiency, and accelerate the creation of high-wage, private, non-farm jobs.

The *Arthashastra* suggests that strategy is most powerful when choices in strength, timing, and place are mutually reinforcing. Combining our strengths in DPI with the new tone from the top about Jan Vishwas (NCAER research suggests 66 per cent of connected Indians use the internet for entertainment but only 11 per cent for online government services), could deliver our new tryst with destiny: Higher state capacity, citizen satisfaction, and mass prosperity. And this is an appointment we shall keep.

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DPI without AI is
infrastructure, and AI without
DPI is intelligence. AI plus DPI
is enhanced state capacity

Key Terms and Explanations

Digital Public Infrastructure (DPI)

Digital Public Infrastructure represents the foundational digital rails built by the public sector—or through public-private partnerships—upon which society and private enterprises can innovate and deliver services. Think of it as the digital equivalent of roads and highways. Instead of concrete, it consists of open-source software, open APIs, and data exchange standards.

AI Deployment vs. AI Generation

This distinction separates the creation of core technology from its practical application.

- AI Generation** refers to building large language models (LLMs), foundational algorithms, and frontier architectures from scratch (such as creating the next deep learning model or foundational generative AI).
- AI Deployment** involves taking these existing intelligent models and weaving them into real-world workflows, local applications, and public services to solve specific, systemic problems.

State Capacity

State capacity is the operational ability of a government to effectively execute its policies, collect revenue, enforce laws, deliver public goods, and respond to the immediate and long-term needs of its citizens. Historically measured by headcount and fiscal spending, modern state capacity is increasingly determined by computational efficiency and processing speed.

Data Exhaust

Data exhaust refers to the continuous stream of logs, digital footprints, and transactional records generated automatically as a byproduct of human activity on digital platforms. When scaled to a population level, this byproduct transforms into an invaluable dataset for behavioral and economic analysis.

- Example:** Every time someone taps a FASTag at a toll booth or completes a quick merchant transaction via a QR code, they generate data exhaust that collectively maps out real-time national logistics and consumption trends.

Jan Vishwas Siddhant (Principles of Trust)

This governance philosophy marks a structural shift away from colonial-era command-and-control mindsets that viewed the citizen with default suspicion. It advocates for replacing cumbersome, preemptive compliance and physical verification regimes with a system of default trust, post-facto verification, and the decriminalization of minor administrative technicalities.

- Example:** Self-certification of documents by citizens instead of requiring attestation by a gazetted officer, backed by digital verification rails.

Information Asymmetry

This economic phenomenon occurs when one party to a transaction possesses substantially more or better information than the other. In traditional economies, information asymmetry makes credit expensive for the poor and increases transaction costs because institutions struggle to separate reliable actors from risky ones.

- Example:** A street vendor might have a highly profitable daily business but cannot secure a formal bank loan because they lack formal accounting books, forcing them to rely on predatory informal moneylenders.

-
- **Main Arguments and Substantive Parts**
 - **The Core Thesis**
 - The central argument is that the next structural leap in public governance will be driven by the symbiotic integration of Artificial Intelligence and Digital Public Infrastructure. While DPI provides the robust, non-proprietary rails (the passive infrastructure), AI injects the cognitive processing power (the active intelligence). Merging them creates an unprecedented scale of public capacity, shifting governance from static, retrospective administration to dynamic, real-time public service delivery.
 - **The Triad of Digital Optimism**
 - The structural transformation rests firmly on three distinct pillars:
 - **Transition from Data-Poor to Data-Rich:** Over the span of a single decade, population-scale digital touchpoints have transformed a developing economy into the world's largest natural data laboratory. Massive volumes of daily transactions across payment networks, tax infrastructure, and identity verifications offer granular, real-time insights into economic health, rendering old methods like delayed, sample-based surveys obsolete.
 - **Reimagining the State Machinery:** Historically, expanding state capacity required hiring more personnel and creating more departments, which often led to bureaucratic bloat. The integration of AI allows the state to process vast amounts of unstructured data, effectively bypassing departmental silos and transitioning from rigid, text-based document storage (PDFs) to fluid, interoperable communication networks (APIs).
 - **Employment via Application Over Generation:** While automated code generation poses structural challenges to traditional IT services, the actual deployment of AI within public platforms promises to create jobs. Building localized applications, managing context-specific data training, and navigating the operational complexities of delivery will require extensive human capital and organizational ingenuity.
 - **The Risks and Counter-Narratives**
 - This technological leap faces several notable friction points and structural vulnerabilities:
 - **The Threat of Algorithmic Exclusion:** When AI systems are deployed to automate welfare targeting, errors in the underlying data or algorithmic biases can lead to false negatives, wrongfully cutting off marginalized citizens from essential life support networks.
 - **Persistent Digital Silos and Legacy Thinking:** Despite technical potential, government departments frequently resist inter-departmental data sharing. This defensive mindset values protective, siloed systems over open, fluid data exchanges.
 - **Disruption of the Traditional IT Employment Engine:** The rise of generative AI models creates a paradox: while application deployment opens new doors, automated code engines simultaneously reduce the entry-level jobs that long formed the backbone of tech employment.

- **Historical Evolution of the Issue**

- **Phase 1: The Paper State and Survey-Led Governance (1947–1980s)**

- **The Post-Independence Reality:** Following independence, the state faced weak administrative capacity and an acute scarcity of reliable data. Economic planning relied heavily on the Mahalanobis model and sample-based surveys conducted by the National Sample Survey Organisation (NSSO).

- **Administrative Characteristics:** Governance was defined by heavy physical paperwork, manual registers, and a "License Raj" mindset. Public delivery systems suffered from pervasive leakages, ghost beneficiaries, and high transaction costs due to the lack of identity verification tools.

- **Phase 2: Early Computerization and Digitization Silos (1980s–2000s)**

- **The Technical Genesis:** The establishment of the National Informatics Centre (NIC) and the rollout of early computerization initiatives marked the first major shift. Governments focused on digitizing land records and setting up localized district databases.

- **The Interoperability Failure:** While individual departments gradually replaced typewriters with desktop computers, they created digital versions of physical silos. Data remained locked inside isolated machines, formatted as static files or printed sheets, with no underlying infrastructure to connect them.

- **Phase 3: The Birth of Population-Scale DPI (2009–2016)**

- **The Identity Foundation:** The launch of the Unique Identification Authority of India (UIDAI) introduced Aadhaar, providing a digital identity rail capable of deduplicating populations and verifying individuals at scale.

- **The Catalyst Year (2016):** A confluence of events transformed the digital landscape: the rollouts of the Unified Payments Interface (UPI) and the Goods and Services Tax (GST), alongside a commercial telecom revolution that drastically lowered mobile data costs. The resulting "JAM Trinity" (Jan Dhan, Aadhaar, Mobile) laid down the infrastructure necessary for population-scale Direct Benefit Transfers (DBT).

- **Phase 4: The Intelligence Layer and Trust-Based Governance (2020s–2026)**

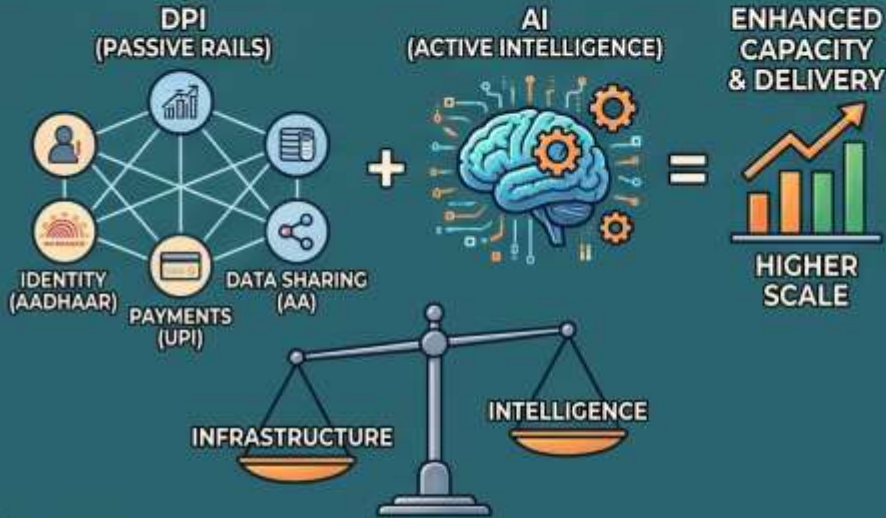
- **The Shift to Cognitive Rails:** Governance is now moving beyond simply collecting data to actively processing it intelligently. Initiatives like NITI Aayog's National Strategy for AI and the development of the Bhashini platform (providing real-time translation across Indian languages) reflect this change.

- **The Modern Paradigm:** The prevailing philosophy has evolved toward the *Jan Vishwas* framework. The state is systematically working to replace preemptive suspicion with trust-based systems, using AI to manage unstructured data, streamline regulatory compliance, and reduce information asymmetry across the economy.



ENHANCED STATE CAPACITY & CITIZEN EMPOWERMENT (JAN VISHWAS)

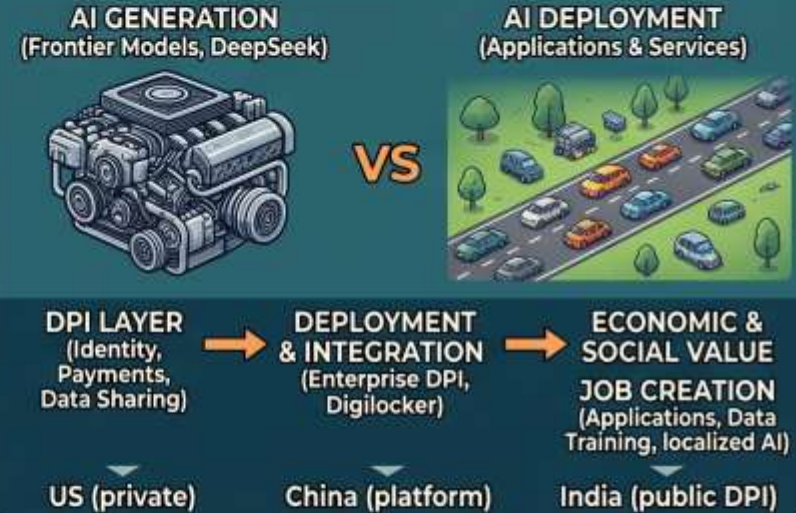
CORE CONCEPT: AI + DPI = SUPERIOR STATE CAPACITY



INDIA'S ADVANTAGE: THE WORLD'S LARGEST NATURAL DATA LABORATORY



AI DEPLOYMENT & EMPLOYMENT GENERATION



KEY TRANSFORMATIONS & USE CASES

TRADITIONAL GOVERNANCE FAILURES (e.g., Sogen Kato case)



Dead People vs 3 Lakh People Identified

DIGITAL PRECISION



Fraud Reduction & Enhanced Efficiency

improved efficiency (117x since 1991)

LEAPFROGGING CHALLENGES

BREAKING DATA SILOS



MULTIPLE LANGUAGE INTERFACES



DPI LAYER (Identity, Payments, Data Sharing)

DEPLOYMENT & INTEGRATION (Enterprise DPI, Digilocker)

ECONOMIC & SOCIAL VALUE

PARADIGMS US (private), China (platform)

China (platform) (public DPI)

JOB CREATION (Applications, Data Training, localized AI)

REIMAGINING GOVERNANCE (JAN VISHWAS)

"Arthashastra: Reinforcing Strategy to make oourse the moratlate Strategies"

CITIZEN SATISFACTION

MASS PROSPERITY

STRATEGY stronger when choices in **STRENGTH, TIMING, PLACE...** are **MUTUALLY REINFORCING**

Connect to New Tryst with Destiny"

HIGHER STATE CAPACITY

Logical and Philosophical Base

The Infrastructure-Intelligence Symbiosis

The foundational logic rests on a simple formula:

$$\text{DPI} + \text{AI} = \text{Enhanced State Capacity}$$

Infrastructure without intelligence is static and passive—a network of pipelines that merely transports data without understanding it. Conversely, intelligence without infrastructure operates in a vacuum, limited to closed private platforms or isolated academic exercises. Combining them pairs the democratic scale of public rails with the cognitive power of machine learning, allowing the state to move beyond simple data entry and start actively understanding and predicting public needs.

Redefining the Scale of Public Capacity

Historically, expanding a state's capacity meant expanding its physical footprint—building more offices, hiring more inspectors, and increasing public spending. This approach often resulted in bureaucratic bloat without necessarily improving public welfare.

The modern approach leverages the marginal cost characteristics of digital networks. Once a digital platform is built, the cost of serving an additional user drops near zero. Adding an AI layer allows a lean administrative structure to handle highly complex public tasks, such as real-time fraud detection and personalized language translations, without requiring an unmanageable expansion of the civil service.

The Democratic Alternative to Global Tech Paradigms

The integration of AI with public infrastructure represents a distinct philosophical path compared to the world's dominant digital models:

This model treats core digital rails as open, non-profit public goods. Private companies do not own the base identity or payment networks; instead, they build innovative applications on top of a shared public layer. This approach protects national data sovereignty while ensuring that public benefit, rather than corporate profit or absolute state control, remains the primary focus.

Multidimensional Analysis

Social Dimension

- Dismantling the Linguistic Barrier:** For decades, access to formal economic opportunities, higher education, and government portals required a working command of English. Integrating real-time voice and language AI into public rails helps dismantle this structural barrier, allowing citizens to interact with state services fluently in their native dialects.
- Precision Welfare and Mitigation of Exclusion:** While predictive algorithms risk misclassifying individuals, an empathetic, well-regulated AI deployment can systematically find and correct systemic patterns of exclusion. Analyzing real-time transactional data helps the state identify eligible families who may have missed out on traditional, paper-based welfare programs.

Political Dimension

- Direct Accountability and the Decline of Intermediaries:** The combination of digital public infrastructure and intelligent routing delivers welfare benefits directly to citizens' accounts, bypassing local middlemen and rent-seeking brokers. This direct relationship shifts the political dynamic from patronage-based distribution to rights-based public service delivery.
- Restoring Trust in Public Institutions:** When citizens can seamlessly access public services online, their daily friction with local administrative bodies decreases. This efficiency helps shift public perception, transforming an encounter with the state from an exhausting bureaucratic chore into a reliable, satisfactory interaction.

Legal Dimension

- The Challenge of Algorithmic Accountability:** Replacing human discretion with automated code introduces a difficult legal question: *Who is legally responsible when an algorithm erroneously denies a citizen an entitlement?* Codifying these workflows requires updating administrative law to ensure clear mechanisms for human review, appeals, and algorithmic audits.
- Consent Frameworks and Data Sovereignty:** Using population-scale data requires strict legal guardrails to protect individual privacy. The system must balance the public benefit of data analysis with individual privacy rights, ensuring that data usage strictly follows explicit consent architectures.

Ethical Dimension

- Surveillance Risks vs. Public Welfare:** Processing massive amounts of transaction, mobility, and identity data creates a profound ethical dilemma. The state must navigate the thin line between using data to optimize welfare delivery and creating a pervasive digital surveillance state that monitors its citizens' daily movements and financial choices.
- Protecting Human Dignity in Digital Spaces:** Automated governance systems run the risk of treating human needs as mere data points. If a vulnerable citizen's biometric authentication fails due to manual labor or aging, an purely automated system might simply reject them. Preserving human dignity requires maintaining compassionate human overrides within automated processes.

International Dimension

- Soft Power and Digital Diplomacy:** Offering open-source, affordable DPI and AI frameworks positions a country as a collaborative technology partner for the Global South. This approach provides developing nations with a proven alternative to expensive proprietary software or geopolitically restrictive tech ecosystems.
- Navigating Global AI Rivalries:** As tech monopolies and geopolitical rivalries restrict access to frontier AI models, developing an application-focused ecosystem offers structural resilience. Focusing on localized deployment helps protect a nation's digital sovereignty, ensuring its public infrastructure remains insulated from global trade restrictions and geopolitical leverage.

Economic Dimension

- Formalizing the Informal Economy:** Combining unique enterprise identification with digital lockers and payment histories reduces information asymmetry. Formal financial institutions can confidently extend credit to small and micro-enterprises based on verified transaction data trails, eliminating the need for traditional physical collateral.
- Lowering Transaction Costs to Boost Productivity:** Moving away from manual checks, physical paperwork, and fragmented systems significantly lowers transaction costs across supply chains. This digital efficiency accelerates the velocity of money, optimizes resource allocation, and helps generate productive non-farm employment.

- **Linkages with NCERT Textbooks**
- **Class 11 Indian Economic Development**
- **Chapter: Poverty:** Directly linked to discussions on target identification, reducing leakages in public distribution, and evaluating how Direct Benefit Transfer (DBT) programs improve the efficiency of anti-poverty initiatives.
- **Chapter: Infrastructure:** Connects to how the definition of infrastructure has expanded beyond traditional physical assets like railways and power plants to encompass digital networks, internet connectivity, and data systems.
- **Chapter: Employment - Growth, Informalisation and Other Issues:** Relevant for analyzing how automated technologies reshape the employment landscape, accelerating the shift away from agriculture toward productive, non-farm service jobs.
- **Class 11 Political Science: Indian Constitution at Work**
- **Chapter: The Executive:** Illustrates the changing nature of public administration and civil services. It highlights how integrating modern technology alters how the bureaucracy delivers public goods and implements state directives.
- **Chapter: Rights in the Indian Constitution:** Provides a foundational context for discussing privacy rights, data protection, and the constitutional balance between individual liberties and the collective goals of a welfare state.
- **Class 12 Sociology: Social Change and Development in India**
- **Chapter: Structural Change / Cultural Change:** Offers a framework to examine how digital tools interact with long-standing social hierarchies, evaluating whether technology helps bridge historical inequalities or introduces new forms of digital exclusion.

- **Linkages with UPSC CSE Syllabus**
- **GS Paper 2: Governance, Constitution, Polity, Social Justice**
- **E-governance:** Detailed models, successes, operational limitations, and potential upgrades of digital delivery platforms.
- **Welfare Schemes:** Reviewing mechanisms to optimize benefit distribution for vulnerable populations using automated data systems.
- **Role of Civil Services:** Analyzing how technology transforms traditional administrative functions and enhances state delivery capacity.
- **GS Paper 3: Technology, Economic Development, Environment, Security**
- **Indian Economy and Employment:** Examining structural issues related to formalization, financial inclusion, and the creation of non-farm jobs.
- **Science and Technology:** Practical applications of artificial intelligence, machine learning, and data analytics in public administration and everyday life.
- **Growth and Development:** Assessing how population-scale digital investments drive macroeconomic productivity and formalize supply chains.
- **GS Paper 4: Ethics and Human Interface**
- **Ethical Governance:** Maintaining accountability, transparency, and fairness in automated public decision-making systems.
- **Human Values and Empathy:** Balancing automated algorithmic efficiency with compassion for marginalized citizens who face access barriers.
- **Essay Paper & Optional Subjects**
- **Essay Themes:** High relevance for essays exploring technology's impact on human development, trust-based governance, and strategies for modern economic growth.
- **Optional Subjects:** Provides valuable case studies and theoretical applications for Public Administration, Sociology, Political Science and International Relations (PSIR), and Economics.



- **Way Forward**
- **Transitioning from Static Files to Active APIs**
 - Government departments must move away from treating digitization as merely saving paper records as static digital documents like PDFs. True interoperability requires a comprehensive transition to secure, standard Application Programming Interfaces (APIs). This shift allows different administrative platforms to communicate instantly, enabling real-time verification and breaking down long-standing bureaucratic silos.
- **Cultivating a Secure Public Data Commons**
 - To foster a local application ecosystem without compromising citizen privacy, the state should develop a well-regulated Public Data Commons. This initiative involves aggregating, anonymizing, and scrubbing population-scale data streams to create clean, secure datasets. These public resources can then be made available to local startups, researchers, and public enterprises to train specialized AI models tailored to local needs.
- **Implementing Robust Human-in-the-Loop Safeguards**
 - To prevent automated systems from wrongfully excluding vulnerable individuals from essential public benefits, governance frameworks must include mandatory human override mechanisms. No algorithm should have the sole authority to terminate welfare access. When biometric authentication fails or data discrepancies occur, the system should trigger a localized, human-led review process to ensure eligible citizens continue receiving support.
- **Redesigning Education for the AI Deployment Era**
 - As automation shifts the technical workforce away from basic coding tasks, educational policies and skill-development programs must adapt. Curriculums should pivot away from repetitive syntax training toward higher-level competencies like data architecture design, system integration, local language training, and prompt engineering. Preparing workers to deploy and manage AI tools will help build a resilient, future-ready talent pool.

UPSC CSE Prelims Questions

1. With reference to the digital platforms in India, consider the following statements: (2023)

1. CoWIN is an open-source digital platform built by the Government of India.
2. DigiLocker is an initiative under the Digital India Programme, providing secure access to digital documents. Which of the statements given above is/are correct?
3. (a) 1 only
4. (b) 2 only
5. (c) Both 1 and 2
6. (d) Neither 1 nor 2

2. Consider the following statements regarding the Unified Payments Interface (UPI): (2020)

1. It allows multiple bank accounts into a single mobile application.
2. It eliminates the need for physical cash or card-based transactions for peer-to-peer transfers. Which of the statements given above is/are correct?
3. (a) 1 only
4. (b) 2 only
5. (c) Both 1 and 2
6. (d) Neither 1 nor 2

3. With reference to the governance of data, "Digilocker" serves as a landmark example of which of the following? (2018)

1. (a) A private cloud storage service provider.
2. (b) A digital platform for issuing and verifying documents and certificates, eliminating physical use.
3. (c) A cryptographic tool for securing cross-border financial transactions.
4. (d) An open platform solely meant for filing Income Tax returns.

UPSC CSE Mains Questions

1. "The expansion of digital public infrastructure has revolutionized financial inclusion in India, yet it poses structural challenges regarding privacy and exclusion." Critically analyze this statement in light of recent technological deployments in welfare governance. **(GS Paper 2, 2024)**

2. Introduce the concept of Digital Public Infrastructure (DPI) and examine how its integration with emerging technologies can bridge the rural-urban divide in access to public services. **(GS Paper 3, 2023)**

3. "E-governance is not only about utilization of the power of information technology, but more about the empowerment of citizens through trust and simplified processes." Comment in the context of recent citizen-centric governance reforms. **(GS Paper 2, 2022)**

4. Examine the socio-economic implications of the growing adoption of Artificial Intelligence in developing economies like India, particularly focusing on its impact on employment generation and labor market dynamics. **(GS Paper 3, 2020)**



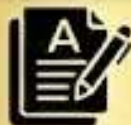
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