

FEBRUARY 2026

# Current Affairs



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## February 2026

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## Issue Focus

### Budget 2026

Context: The Union Minister for Finance and Corporate Affairs presented the Union Budget in the first week of February.

It is the first Budget that has been prepared in the Kartavya Bhawan hence it is inspired by three Kartavyas or Duties mentioned as under



After the Prime Minister's announcement on Independence Day in 2025, over 350 reforms have been rolled out. These include GST simplification, notification of Labour Codes, and rationalisation of mandatory Quality Control Orders. High Level Committees have been formed and in parallel, the Central Government is working with the State Governments on deregulation and reducing compliance requirements.

Under the **first kartavya** to accelerate and sustain economic growth, interventions were proposed in six areas:

- Scaling up manufacturing in 7 strategic and frontier sectors
- Rejuvenating legacy industrial sectors
- Creating "Champion MSMEs"

- d. Delivering a powerful push to Infrastructure
- e. Ensuring long-term energy security and stability
- f. Developing City Economic Regions

#### Biopharma Shakti:

- To develop India as a global manufacturing hub, the Biopharms Shakti with an outlay of Rs. 10,000 Crore to build the domestic the ecosystem for domestic production of biologics and biosimilars will be set up over the next 5 years.

#### Strategy Components

Category	Key Initiatives
<b>Network Development</b>	<ul style="list-style-type: none"> <li>- 3 new National Institutes of Pharmaceutical Education and Research (NIPER)</li> <li>- Upgrade 7 existing NIPERs</li> <li>- Network of 1000+ accredited India Clinical Trials sites</li> </ul>
<b>Regulatory Strengthening</b>	<ul style="list-style-type: none"> <li>- Strengthen Central Drugs Standard Control Organisation (CDSCO) for global standards</li> <li>- Dedicated scientific review cadre</li> <li>- Specialists for faster approval time frames</li> </ul>

- National Fibre scheme for self-reliance in natural fibres such as silk, wool and jute, man-made fibres, and new age fibres.
- Textile expansion and employment scheme to modernize traditional clusters with capital support for machinery, technology, up-gradation and common testing and certification centres.
- A National Handloom and handicraft programme to integrate and strengthen existing schemes and ensure targeted support for weavers and artisans.
- Samarth 2.0 to modernize and upgrade the textile skilling ecosystem through collaboration with industry and academic institute.
- Recognising MSMEs as a vital engine of growth, a dedicated ₹10,000 Cr. SME Growth Fund was proposed to create future Champions, incentivizing enterprises based on select criteria.



- Public Capex has increased manifold. It was 2 lakh cr. in 2014-15 now it is 11.2 lakh cr. in 2025-26. The Finance Minister has further proposed to increase it to 12.2 lakh Cr. for 2026-27.

- To promote environmentally sustainable movement of cargo new Dedicated Freight Corridors connecting Dankuni in the East, to Surat in the West; b) operationalise 20 new National

Waterways (NW) over next 5 years, starting with NW-5 in Odisha to connect mineral rich areas of Talcher and Angul and industrial centres like Kalinga Nagar to the Ports of Paradeep and Dhamra have been proposed.

- Training Institutes will be set up as Regional Centres of Excellence for development of the required manpower.
- The Budget boosts cities' economic power by mapping City Economic Regions (CERs) based on their unique growth drivers. It proposes ₹5000 crore per CER over 5 years to fund their plans via a competitive challenge mode, using reform-linked and results-based financing.
- To promote environmentally sustainable passenger systems, seven High-Speed Rail corridors between cities will be developed as 'growth connectors', namely i) Mumbai-Pune, ii) Pune-Hyderabad, iii) Hyderabad-Bengaluru, iv) Hyderabad-Chennai, v) Chennai-Bengaluru, vi) Delhi-Varanasi, vii) Varanasi-Siliguri.

## Second Kartavya

- Close to 25 crore individuals have come out of multidimensional poverty through a decade of Government's sustained and reform-oriented efforts.
- To promote India as a hub for medical tourism services, scheme has been proposed to support States in establishing five Regional Medical Hubs, in partnership with the private sector.

These Hubs are integrated healthcare complexes combining medical, educational, and research facilities. They include AYUSH Centres, Medical Value Tourism Facilitation Centres, and infrastructure for diagnostics, post-care, and rehabilitation. They offer diverse jobs for health professionals like doctors and AHPs.

- To scale up availability of veterinary professionals by more than 20,000, a loan-linked capital subsidy was proposed to support scheme for establishment of veterinary and para vet colleges, veterinary hospitals, diagnostic laboratories and breeding facilities in the private sector.
- India's AVGC (Animation, Visual Effects, Gaming, Comics) sector is growing fast and will need 2 million professionals by 2030. India's AVGC (Animation, Visual Effects, Gaming, Comics) sector is growing fast and will need 2 million professionals by 2030.
- Proposal for National Institute of Hospitality by upgrading the existing National Council for Hotel Management and Catering Technology. It will function as a bridge between academia, industry and the Government. Further pilot scheme was proposed for upskilling 10,000 guides in 20 tourist sites through a standardized, high-quality 12-week training course in hybrid mode, in collaboration with an Indian Institute of Management.
- In the budget it was proposed to launch a Khelo India Mission to transform the Sports sector over the next decade. The Mission will facilitate: a) An integrated talent development pathway, supported by training centres b) systematic development of coaches and support staff; c) integration of sports science and technology; d) competitions and leagues to promote sports culture and provide platforms; and, e) development of sports infrastructure for training and competition.

### Third Kartavya

- Targeted efforts for increasing farmer incomes, empowering Divyangjan, empowering the vulnerable to access mental health and trauma care, focus on the Purvodaya States and the North-East Region to accelerate development and employment opportunities.
- Bharat-VISTAAR (Virtually Integrated System to Access Agricultural Resources), a multilingual AI tool that shall integrate the AgriStack portals and the ICAR package on agricultural practices with AI systems. This will enhance farm productivity, enable better decisions for farmers and reduce risk by providing customised advisory support.
- Self-Help Entrepreneur (SHE) Marts will be set up as community-owned retail outlets within the cluster level federations through enhanced and innovative financing instruments.
- Announcement to set-up NIMHANS-2 and also upgrade National Mental Health Institutes in

Ranchi and Tezpur as Regional Apex Institutions.

- Development of an integrated East Coast Industrial Corridor with a well-connected node at Durgapur, creation of 5 tourism destinations in the 5 Purvodaya States, and the provision of 4,000 e-buses. She also proposed to launch a Scheme for Development of Buddhist Circuits in Arunachal Pradesh, Sikkim, Assam,

Manipur, Mizoram and Tripura. The Scheme will cover preservation of temples and monasteries, pilgrimage interpretation centers, connectivity and pilgrim amenities.

## Fiscal Consolidation

The debt-to-GDP ratio is estimated to be 55.6 percent of GDP in BE 2026-27, compared to 56.1 percent of GDP in RE 2025-26.

- A decline in the debt-to-GDP ratio means a country's government debt is shrinking relative to the size of its economy. This signals improved fiscal health, as the nation can better manage repayments without needing excessive new borrowing.
- Lower debt-to-GDP gives governments more space to borrow later if needed. Investors feel more confident, which can reduce borrowing costs. It shows the economy can handle debt repayments more easily.

The non-debt receipts and the expenditure are estimated as ₹36.5 lakh crore and ₹53.5 lakh crore respectively. The Centre's net tax receipts are estimated at ₹28.7 lakh crore.

To finance the fiscal deficit, the net market borrowings from dated securities are estimated at ₹11.7 lakh crore. The balance financing is expected to come from small savings and other sources. The gross market borrowings are estimated at ₹17.2 lakh crore.

## Direct Tax Reforms (Budget 2026-27)

Reform	Key Details
Reform	Key Details
Income Tax Slabs	No change for AY 2026-27; same as previous year.
Tax Holidays	Foreign cloud services via Indian data centres exempt until 2047 (routed through Indian reseller). IFSC/Offshore units: 20 years (up from 10); then 15 percent tax.

Reform	Key Details
Reform	Key Details
Share Buybacks	Taxed as capital gains; promoters pay extra tax (22 percent corporate, 30 percent non-corporate).
Securities Transaction Tax (STT)	Options: 0.1 percent to 0.15 percent; Options exercised: 0.125 percent to 0.15 percent; Futures: 0.02 percent to 0.05 percent.
Mutual Fund Deductions	No deduction for interest on dividend/mutual fund income (previously up to 20 percent of gross).
Minimum Alternate Tax (MAT)	No credits from April 2026; rate 15 percent to 14 percent; set-off up to 25 percent liability in new regime only.
Foreign Assets Disclosure	Timebound scheme for small taxpayers (e.g., returning NRIs); graded relief with tax/fee for immunity from penalty/prosecution.
Non-Resident Relaxations	5-year exemption for capital goods to electronics manufacturers; global income exempt for experts (5 years); MAT exemption expanded.
Penalty/Prosecution	Several offences decriminalised or capped at 2 years imprisonment.
TCS Reductions	Education/medical remittances (more than Rs 10 lakh): 5 percent to 2 percent; Overseas tour packages: 5 percent/20 percent to 2 percent flat.

## How is Budget 2026 different from previous Budgets?

- a. The Budget was presented on Sunday.

- b. It was the first Budget which was prepared in Kartavya Bhawan.

## Fiscal Terms

It was a continuity budget based on stability and capacity, which shows that country is fiscally doing well.

- a. The budget is designed to cater to geopolitical curiosity. No new schemes have been announced but emphasis is given on building principled on Sabka Saath sabka Vikas to reduce dependence on countries amid rising global tensions.

The budget shows that fiscal discipline is a structural constraint as investors watch Indian markets. No new schemes are announced and tax rates are same as previous years with provision for simplification of taxes. Large tax cuts mean more government spending, which in turn would mean more borrowing hence a greater interest rate. The end result is slow growth. By keeping tax rates untouched, government is creating way for better growth.

## Public Capex

Increase in public expenditure confirms that infrastructure led growth is the new economic model.

### Significance of capital expenditure

- It builds productive assets like roads, bridges, ports, food parks
- Lowers cost across economy
- Crowds in private investment

The growth connectors proposed in the budget aims to link labour market, increase economic density and bring markets closer to hubs. This will not only reduce migration but also help in holistic economic development of the country.

## Manufacturing sector

The manufacturing sector has become a strategic sector. It is being developed to

- Build capacity
- Mass employment
- Generate and increase exports
- Support currency stability

Manufacturing has the ability to transform economy. There can be no better example than china, from plastic to Rare earth minerals China has used manufacturing to occupy the centre-stage in global economy.

## Rare earth Mineral corridor

The Union Budget 2026–27 announced the establishment of dedicated Rare Earth Corridors in Odisha, Kerala, Andhra Pradesh, and Tamil Nadu to build a domestic ecosystem for processing and manufacturing rare-earth permanent magnets (REPMs). This initiative aims to reduce import dependence, particularly from China, by utilizing a ₹7,280 crore incentive package for manufacturing and research, focusing on critical materials for EVs, defense, and electronics.

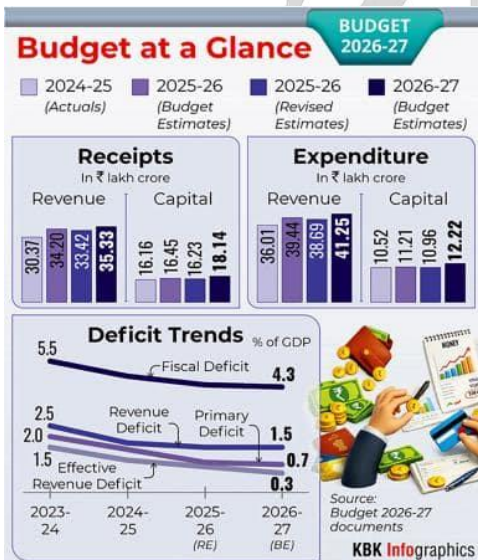
## India's Strategic Rare Earth Mineral Deposits

Overview of key rare earth mineral sources, primary elements, and geological locations.

Mineral Source	Primary Elements	Key Locations
<b>Monazite (Sands)</b> 	Neodymium, Praseodymium, Cerium 	Kerala TN Odisha Andhra (Andhra Pradesh)
<b>Carbonatites</b> 	Light & Heavy REEs Light REEs Heavy REEs	Gujarat (Amba Dongar) Rajasthan
<b>Apatite/Phosphate</b> 	General REE suite 	West Bengal Jharkhand
<b>Laterite/Bauxite</b> 	Scandium, Yttrium Scandium Yttrium	Meghalaya (Sung Valley) Jharkhand

Therefore for the first time, operating, mining, processing and mineral logistics has been treated as National infrastructure foundational to industry. This shows government's commitment to build India as a self-reliant industrial hub.

### MSMEs



Three-pronged policy for MSME growth

- Equity support
- Liquidity Support
- Professional Support

Till now the emphasis was on building MSMEs but in this budget the focus has shifted to integrating them into the supply chain, thus MSMEs are seen as drivers of economic growth.

Overall, the 2026 budget is a continuity budget which means that country is doing well fiscally.

Union Budget 2026-27 strategically balances fiscal prudence with bold investments in infrastructure, manufacturing, and human capital to sustain 7%+ growth amid global uncertainties.

Key reforms in banking, NRI investments, skilling (e.g., 1 lakh health professionals), and sectors like AI, semiconductors, and railways aim to harness India's youth power for Viksit Bharat while boosting

jobs, MSMEs, and ease of living.

Ultimately, this youth-driven blueprint transforms aspirations into achievements, fostering inclusive, resilient prosperity



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## Governance and Polity

### 1. Industrial Relations Code (Amendment Bill) 2026

**In News:** The Industrial Relations Code (Amendment) Bill, 2026 was introduced in Lok Sabha on February 11, 2026.

**Objective:** The Bill seeks to amend the Industrial Relations Code, 2020. The Code provides for matters such as recognition of trade unions, notice periods for strikes and lockouts, and resolution of industrial disputes.

The Bill would help avoid any “future unwarranted complication” over the continuity of certain laws replaced by the Industrial Relations Code of 2020

Need for Industrial Relations Code

The Industrial Relations Code 2020 addresses the fragmentation of India's outdated labour laws by consolidating three key acts—the Trade Unions Act 1926, Industrial Employment (Standing Orders) Act 1946, and Industrial Disputes Act 1947—into a single framework, reducing compliance burdens and promoting ease of doing business.

- a. **Industrial Harmony:** Provides structured dispute resolution, collective bargaining, trade union recognition, and clearer rules for strikes, layoffs, retrenchment, and closures to minimize conflicts and foster employer-employee balance.
- b. **Operational Flexibility:** Raises thresholds (e.g., for standing orders and retrenchment approval) for smaller firms while protecting workers, enabling faster hiring/firing and fixed-term employment amid evolving industries.
- c. **Modern Compliance:** Streamlines processes, standardizes definitions, and cuts multiplicity of laws that caused high enforcement costs, poor inspections, and delays.

Significance of the Industrial Relations Code

The Industrial Relations Code 2020 holds transformative significance by modernizing India's labour framework, consolidating three fragmented laws into one unified code to promote industrial harmony, worker protections, and business flexibility.

- a. **Ease of Doing Business:** Simplifies compliance with standardized definitions, higher thresholds for standing orders/retrenchment (e.g., up to 300 workers without prior approval), and fixed-term contracts, enabling faster operations and hiring.
- b. **Worker Empowerment:** Ensures statutory benefits like retrenchment compensation, grievance redressal, and collective bargaining via recognized unions/councils; expands rights to more

sectors including journalists.

- c. Dispute Resolution: Streamlines strikes, lockouts, conciliation, and tribunals for quicker settlements, reducing litigation and fostering pro-growth relations



This targeted amendment reinforces labour reforms by stabilizing the unified framework, promoting compliance, industrial peace, and pro-worker provisions like enhanced tribunals and social security linkages—paving the way for equitable growth without halting progress.

## 2. India's M.A.N.A.V Vision for AI

Context: At the India AI Impact Summit Prime Minister Narendra Modi presented a human-centric vision for AI, rejecting its portrayal as a purely autonomous force driven by data and algorithms. Instead, he positioned AI as an extension of human aspirations, ethics, and dignity. This approach was outlined through the acronym M.A.N.A.V., a roadmap ensuring technological progress aligns with societal values.

**M:** Moral and Ethical Systems

**A:** Accountable Governance

**N:** National Sovereignty

**A:** Accessible and Inclusive AI

**V:** Valid and Legitimate Systems

India's M.A.N.A.V. vision is not merely a conceptual framework articulated by the Prime Minister; it also reflects an ongoing national commitment to building a strong foundation through coordinated programmes and policy initiatives

## First-Pillar: Moral and Ethical system

This vision underscores, that AI must be rooted in strong **Moral and Ethical system**. Emphasis is put on fairness, transparency, and human oversight as non-negotiable principles in AI design and deployment. India is embedding these values early, beginning in classrooms and extending to society at large.

This vision is also in tandem with the National Education Policy focuses on teaching digital and AI skills. It adds computational thinking and basic AI ideas to school subjects at all levels. This helps kids learn data-based decisions and ethical AI use early on. The goal is to build innovation and prepare students for a fast-changing tech world.

## Second Pillar: Accountable Governance

- It envisions transparent rules and robust oversight, reinforces that trust in AI must be anchored in transparency, robust oversight, and clear institutional responsibility.
- At the heart of this vision is the **IndiaAI Mission**, approved with an outlay exceeding ₹10,300 crore. This not only strengthens compute, data, skilling, and innovation capacity, but also embeds governance mechanisms into the AI ecosystem from the outset. By institutionalizing standards for responsible development, deployment, and monitoring of AI systems, the Mission ensures structured oversight across public-sector applications and emerging technologies.

## Third Pillar: National Sovereignty

- In an AI-driven world, sovereignty extends beyond territorial boundaries to encompass data, algorithms, and digital infrastructure.

For India, this means securing critical datasets, strengthening domestic compute capacity, and fostering indigenous AI model development. Initiatives such as the India Semiconductor Mission, trusted data governance frameworks, and investments in secure digital public infrastructure reflect a commitment to technological self-reliance without digital isolation.

- By building resilient domestic capabilities in chips, cloud, and advanced technologies, India is ensuring that its AI ecosystem remains globally collaborative yet strategically autonomous, safeguarding economic security and democratic institutions in the age of intelligent systems.

## Fourth Pillar: Accessible and Inclusive AI

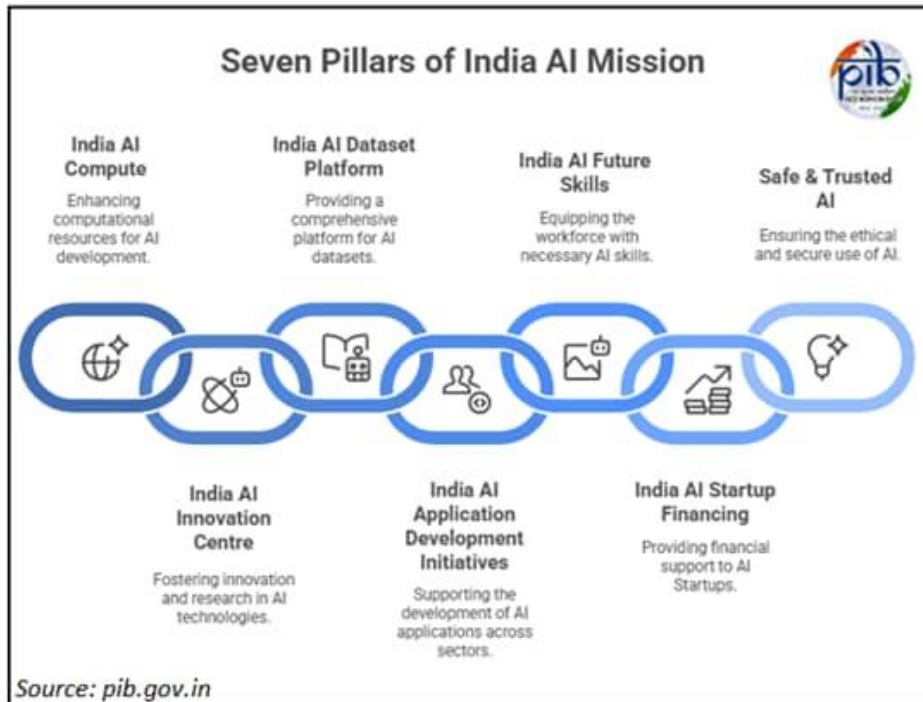
- It affirms that artificial intelligence must serve as a multiplier for society, not a monopoly of a privileged few.
- India's Digital Public Infrastructure is enabling AI solutions to scale rapidly and affordably across healthcare, education, agriculture, and governance. Platforms such as MeghRaj GI Cloud and the IndiaAI Compute Portal are democratising access to shared computing resources including Graphics Processing Units (GPUs) and Tensor Processing Units (TPUs) significantly lowering entry barriers for startups, researchers, and institutions.

## Fifth Pillar: Valid and Legitimate Systems

- It places Trust, Safety, and Legality at the centre of AI deployment. The Prime Minister underscored that AI systems must be verifiable, lawful, and transparent particularly at a time when deepfakes and synthetic media pose risks to democratic discourse and social trust.

AI systems must be verifiable, lawful, and transparent particularly at a time when deepfakes and synthetic media pose risks to democratic discourse and social trust.

The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules, 2026 formally define and regulate synthetically generated content, strengthening accountability in the digital ecosystem.



As home to one-sixth of the world's population, the largest youth cohort globally, and one of the most dynamic technology talent pools, India stands as both a creator and a rapid adopter of emerging technologies. This unique position confers not only scale, but also responsibility in shaping the global AI discourse. Through the M.A.N.A.V.

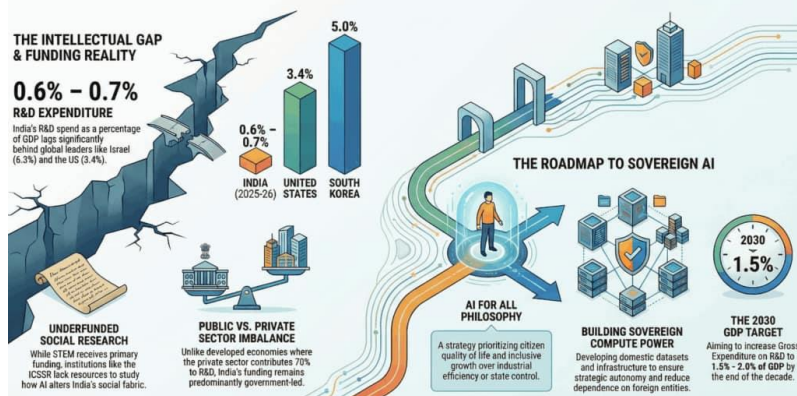
framework, India is actively shaping a global AI discourse that prioritizes human dignity alongside technological advancement. India aims to ensure that artificial intelligence serves as a secure, equitable, and transformative tool for society, rather than just an unchecked technological force.

## 3. India's AI Impact Summit

**In news:** The India AI Impact Summit 2026 was held at Bharat Mandapam in New Delhi, organized by the Ministry of Electronics and Information Technology (MeitY). As the first major global AI summit hosted in the Global South, it highlights India's leadership in promoting inclusive, development-oriented AI.

The Summit was hosted under the India AI Mission, shifting the global narrative from "AI Safety" to "AI for Development and Impact."

## SOVEREIGN INTELLIGENCE: INDIA'S HUMAN-CENTRIC AI ROADMAP 2026



### Significance of the Summit

- India as leader in Global South:** The India AI Impact Summit 2026 positions India as a Global South leader by shifting the focus from AI safety to AI for development, guided by the principles of People, Planet, and Progress and promoting inclusive, responsible AI governance.
- Establishing India's niche in AI:** Through the IndiaAI Mission, digital public infrastructure, and global partnerships, the summit advances AI-driven solutions for healthcare, agriculture, climate resilience, governance, and economic growth while strengthening digital sovereignty and workforce readiness.
- Sovereign AI:** The summit unveiled indigenous models like Sarvam AI's LLMs, Gnani.ai's multilingual voice tech, and BharatGen's Indic-focused model, reducing reliance on foreign platforms via the ₹10,000 crore IndiaAI Mission
- Tech Democratization:** India promotes "AI Commons" for shared compute and data access, showcasing Digital Public Infrastructure (DPI) like UPI as a blueprint for equitable AI adoption
- Innovation and Diplomacy:** It bridges developed and developing worlds, boosting workforce skilling, startups, and diplomacy while expanding GPU infrastructure to 58,000+ units.

### Highlights of AI Impact Summit

Theme and Philosophy: The summit is anchored in Indian ethos, specifically the motto "Sarvajana Hitaya, Sarvajana Sukhaya" (Welfare for all, happiness for all)



**The Three Sutras (Pillars):** People, Planet, and Progress.

**People:** Developing AI that empowers citizens through healthcare, education, and financial inclusion.

**Planet:** Using AI for sustainable practices, climate resilience, and resource efficiency.

**Progress:** Harnessing AI for economic growth, governance, and public service delivery.

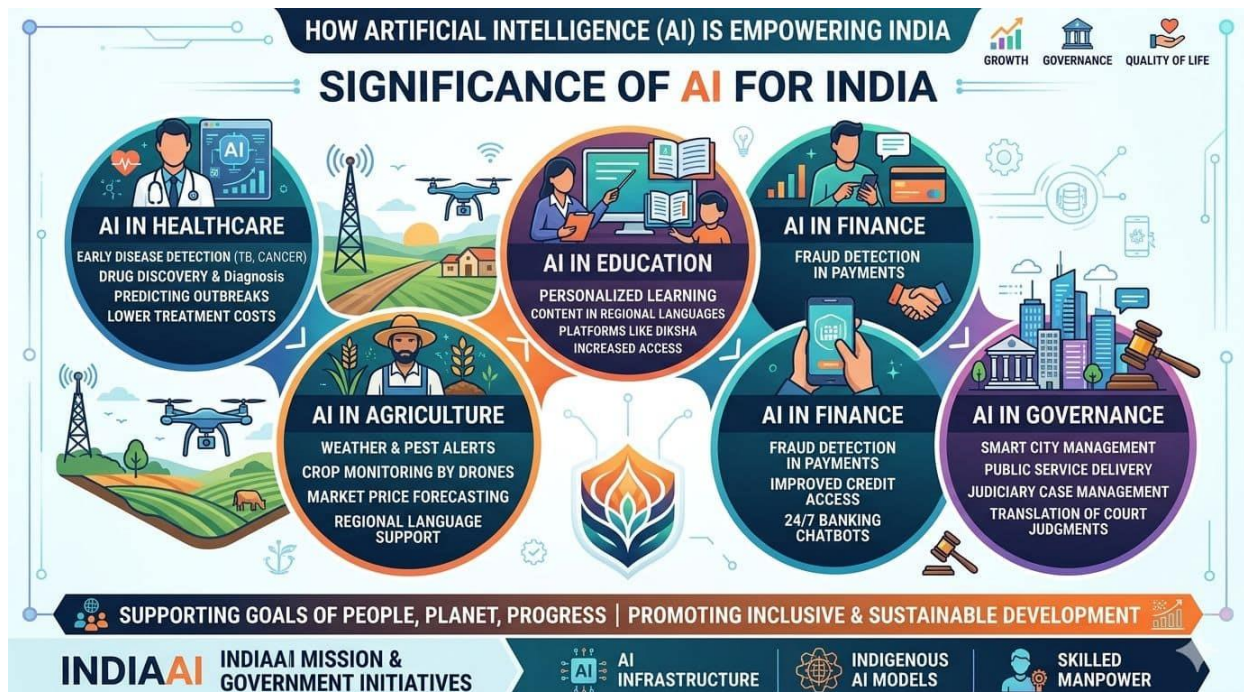
The Seven Chakras (Working Groups): Focused themes including Health, Agriculture, Safe & Trusted AI, Science, Inclusion, Democratizing AI Resources, and Economic Development. These Chakras represent important areas of international cooperation to ensure that AI brings real and practical benefits to society.

- a. **Human Capital:** AI transforms jobs by birthing new opportunities while phasing out others, potentially widening an "AI skills gap." The Human Capital Chakra champions workforce upskilling, AI fluency, and equitable sharing of AI gains across all labor sectors.
- b. **Scientific Advancement:** AI revolutionizes research in fields like healthcare, climate solutions, and advanced materials. The Scientific Advancement Chakra fosters worldwide partnerships, robust guidelines, and translating AI breakthroughs into tangible global impacts.
- c. **Resilience, Innovation, and Efficiency:** Expanding AI adoption risks environmental strain and uneven progress. The Resilience, Innovation & Efficiency Chakra drives eco-friendly, high-performing AI that thrives even in resource-scarce settings.
- d. **Inclusive Social Empowerment:** AI holds power to accelerate societal and economic gains when harnessed inclusively. The Inclusive Social Empowerment Chakra advocates for AI designs that equitably serve diverse

populations.

- e. **Democratizing AI Infrastructure:** AI relies on massive compute power and data hubs concentrated in select nations, fueling worldwide disparities. The Democratizing AI Infrastructure Chakra works to deliver cost-effective, universal access to these essentials, enabling all countries to share in AI's evolution.
- f. **Economic Prosperity and Societal Benefit:** AI fuels economic expansion and social upliftment. The Economic Prosperity and Societal Benefit Chakra leverages AI to enhance public services, boost output, and advance equitable, inclusive growth.
- g. **Safe and Reliable AI:** Building ethical, secure, dependable AI that safeguards privacy and minimizes biases.

Institutional framework: The India AI Impact Summit 2026 is anchored by key institutional frameworks including MeitY, the IndiaAI Mission, Software Technology Parks of India (STPI) and the Digital India initiative.



## AI infrastructure versus AI applications

In 2025, companies invested \$320 billion in AI infrastructure. Yet foundation model firms earn slim profits—high inference costs eat into revenue, and fierce competition suppresses prices.

Companies poured \$320 billion into AI infrastructure in 2025, but foundation model companies like OpenAI struggle with thin profits. High costs to run AI (inference) eat into revenue, and competition keeps prices low. OpenAI hit \$13 billion in yearly revenue by August 2025 but still lost \$5 billion in 2024—this VC-funded model won't last forever.

AI industry faces profitability crisis despite \$320B infrastructure spend in 2025. Foundation models like OpenAI lose billions due to high costs and competition. Real value shifts to practical AI applications (\$19B spend, 6% software market), with 10 products at \$1B+ ARR.

## Challenges for policymakers

Policymakers face a key challenge: promote fair competition and protect copyrights in AI without heavy rules that slow down creativity.

- a. **Competition Balance:** Big AI firms (like OpenAI) now build apps themselves, squeezing out smaller startups without cheap access to chips/data. Regulators should review buyouts—block those that kill rivals (e.g., acqui-hires where talent is grabbed and products shut)—to keep the field open.
- b. **Copyright & Privacy:** AI trains on vast data, raising ownership fights. Rules must clarify fair use while letting innovation breathe; privacy laws need updates for AI agents handling personal info.
- c. **Internet Parallel:** Just as bandwidth alone didn't pay. AI profits come from practical tools (coding aids, healthcare bots), not raw servers. Let apps experiment freely to find winners.

Policymakers should not hurry into strict regulations. The application layer needs room to experiment, fail and improve until it finds product-market fit. But still, rules about competition, especially reviews of acquisitions that prevent big companies from buying and shutting down potential rivals, are important

## 4. Visible Progress, invisible exclusion

**Context:** Budget 2026-27 shifts from crisis spending to sustained infra-capex (₹12.2 lakh crore) and MSME support, targeting 4.3% fiscal deficit for Viksit Bharat. While this builds economic backbone, it masks jobless growth

Government is focusing on capital spending and expansion of MSMEs is seen as establishing them as

backbone of the economy, however despite the infrastructure led growth, the vast pool of labour has nothing in store for them.

## CAPITAL EXPENDITURE

**CAPITAL EXPENDITURES** are the expenses incurred by the firm for acquiring or upgrading or maintaining the tangible assets like plants and machinery, buildings, etc.

### EXPLANATION

- These are incurred by in order to increase their scope of operations and smooth functioning.
- It needs to be capitalized and hence forms a part of balance sheet under head PPE.
- They are shown in the cash flow statement under the category of investment activities as it is a cash outflow.

### CAPITAL vs REVENUE EXP.

- **Capital Expenditure** : These are long term expenses and the effect continues beyond the current accounting year.
- **Revenue Expenditure** : These are short term expenses and are incurred to maintain day to day functioning of an organization.

### CLASSIFICATION

- ❖ Expenses incurred for maintaining the operation
- ❖ Expenses incurred for increasing the future growth
- ❖ Expenditure is incurred for business development
- ❖ Research work expenses
- ❖ Expenditure is incurred indirectly for production.
- ❖ Expenditure for innovation

### IMPORTANCE

- ❖ Effect for longer tenure
- ❖ The amount spent on such expenses cannot be reversed
- ❖ High cost
- ❖ Capital expenditure are to be depreciated for the tenure for which they gives benefit.

### Towards Growth Doctrine

Historically, India's capital expenditure (capex) took a backseat in budgets. It expanded when revenues permitted and restrained if deficits increased. From 2020-21 onwards, capex expenditure ceased to function as a counter-cyclical instrument and instead became the organising principle of fiscal policy. This was because, capital expenditure results in infrastructure growth, which further helps in crowding in private investments and hence better employment growth.

However, the expansion in capex expenditure has not helped young people get gainful employment. As per Youth NEET rate (share of people who are not in education, employment, or training) for ages 15-29 remains in the 23%-25% range, which is higher than several other economies of the world.

### Construction and Agriculture sector

Construction jobs aren't growing as expected despite record infrastructure spending. Agriculture tells a worse story, instead of shedding workers as productivity rises elsewhere, it's pulling them back. India modernizes infrastructure while its workforce retreats to low-productivity farming—a structural U-turn.

Weak job growth stems from capex favoring capital-heavy production. Public investment boosts worker productivity sharply, but wages lag far behind. This means that gains enabled by infrastructure is captured as profits rather than passed down as labour wages. While the economy is growing, the labour growth has remained largely stagnant.

India's factories are mostly small (less than 100 workers), producing little output. Large firms

dominate value, use new infrastructure efficiently, but employ few workers. Labour-heavy MSMEs can't scale, automate, or compete.

This creates a dual economy: Capital-rich big firms drive GDP with few jobs; informal/small sector traps workers in low-productivity, low-pay work.

Concern

Fiscal policy now prioritizes growth over direct job creation as the government sees employment as a side effect, not a main goal, and lacks tools to engineer it.

Projections favor skilled, urban, automation-ready workers. Others fall into informal jobs, self-employment, or farming. Even formal wages grow slowly. All these factors put together has resulted in low absorption of labour even though capex spending has increased considerably.

## 5. De-notified Tribes seek Constitutional Recognition, separate Census Entry

Context: Denotified tribes, nomadic tribes, semi-nomadic tribes seek 'separate column' in 2027 caste census, claiming they have been politically misclassified among SC, ST, OBC groups; they want sub-classification to highlight backwardness within grouping.

In February 2027, India will conduct a caste enumeration for the first time since 1931. Five years after that 1931 Census, the origins of the Scheduled Castes list came into being in the form of the Government of India (Scheduled Castes) Order, 1936.



### Denotified Tribes

Denotified Tribes refers to a diverse group of communities including nomadic and semi-nomadic groups that were legally branded as "habitual criminals" under the colonial Criminal Tribes Act (CTA) of 1871.

The term "Denotified" specifically refers to their legal status following the repeal of the CTA on August 31, 1952, based on the recommendations of the Ayyangar Committee (1949). While the repeal ended the formal "criminal by birth" label, these tribes were subsequently

governed by Habitual Offenders Acts, which often perpetuated the same systemic surveillance and social stigma they face today.

## Issues faced by Denotified Tribes

- a. **The "Unclassified" Gap:** Approximately 267 DNT communities remain entirely outside the Scheduled Caste (SC), Scheduled Tribe (ST), or Other Backward Classes (OBC) lists, leaving them without access to any reservation or welfare benefits.
- b. **Amalgamation vs. Identity:** Most DNTs have been "amalgamated" or merged into existing SC/ST/OBC categories. This dilutes their unique tribal identity and specific historical grievances.
- c. **Inability to Compete:** Because DNTs are often the most marginalized within the larger SC or OBC groupings, they cannot compete with more socially or politically advanced communities within the same category for jobs, education, or resources.
- d. **Resource Capture:** More "politically powerful" communities within the SC/ST lists often corner the benefits, leaving DNTs "crowded out."
- e. **High Threshold for ST Status:** Many DNTs naturally qualify for Scheduled Tribe (ST) status based on their culture, lifestyle, and community laws. However, the administrative criteria for entering the ST list are too high, preventing them from accessing the protections they deserve.
- f. **Political Inertia:** There is a "political strength" struggle where communities already in the SC category are prevented from moving to more appropriate categories because it might shift the voting power or population dynamics of the existing group.
- g. **Educational Crisis:** The text highlights a severe lack of basic education, citing communities in Haryana where **not a single member** has completed 10th-grade schooling.
- h. **Historical Stigma:** Although not explicitly detailed in this excerpt, the mention of the Idate Commission implies a continuation of the "marginalization" stemming from their historical branding as "criminal."

## Impact of Separate Census Entry

Currently, DNTs are often subsumed under broader SC, ST, or OBC categories, making it impossible to know their exact population or socio-economic condition. A separate entry in the **2027 Census** would:

- a. **End "Statistical Erasure":** It provides a clear, nationwide count of the 1,200+ communities. Without this data, the government cannot allocate budgets proportionally (e.g., the **SEED Scheme** often suffers from underutilization because beneficiaries cannot be accurately identified).

- b. **Targeted Resource Allocation:** Data allows for "Sub-Plan" style budgeting, ensuring that funds specifically reach DNT clusters rather than being absorbed by more dominant groups within the SC/OBC lists.
- c. **Evidence for Legal Claims:** Empirical data is a prerequisite for any community seeking to move from the OBC list to the ST list or to argue for sub-classification in court
- d. **Permanent Statutory Body:** Constitutional recognition (like a National Commission for DNTs under a new Article) would provide a permanent watchdog to monitor atrocities, investigate rights violations, and handle grievances, moving beyond the current temporary "Welfare Boards."
- e. **Protection from Atrocities:** It would allow for the inclusion of DNTs under the **SC/ST (Prevention of Atrocities) Act, 1989**. Currently, DNTs who are not in the SC/ST list have no special legal protection against systemic caste-based violence or police harassment
- f. **Unified National Identity:** Currently, a community might be an ST in one state, an SC in another, and unclassified in a third. Constitutional status would create a uniform national identity, simplifying the issuance of Caste Certificates, which is currently the biggest hurdle to accessing education and jobs.

The Idate Commission (2018) and Renke Commission (2008) both argued that mere "denotification" was insufficient without a constitutional anchor. the current crisis of the 267 unclassified communities proves that "denotification" alone is insufficient without enumeration. The inclusion of a separate entry for DNT, NT, and SNT groups in the 2027 Census is not merely a data-gathering exercise; it is a foundational step toward distributive justice.

Only by aligning their unique cultural identity with targeted socio-economic safeguards can the state ensure that the "last person in the line"—as envisioned in Antyodaya—is finally seen, counted, and uplifted.

## YOUR ZEAL • OUR EXPERTISE

### 6. Motion of Thanks passed without Prime Minister's response in Lok Sabha

In News: The latest session of the parliament was concluded after Motion of Thanks was passed but in absence of the Prime Minister.

The passage of a Motion of Thanks without the Prime Minister's customary reply is a rare and significant procedural anomaly in the Indian Parliamentary system. Traditionally, this motion serves as the definitive conclusion to the debate on the President's Address, marking a high point of

executive accountability to the Legislature.

CONSTITUTIONAL & PROCEDURAL DIMENSIONS: MOTION OF THANKS IN LOK SABHA		
Key Feature	Standard Requirement	Impact of Deviation
<b>CONSTITUTIONAL BASIS</b>	<b>ARTICLE 87(2)</b> Discussions on the President's Address	<b>PROCEDURAL IRREGULARITY</b> If debate is cut short or consensus is bypassed
<b>PRIME MINISTER'S (PM) RESPONSE</b>	<b>CUSTOMARY &amp; CONVENTIONAL</b> Defines the end of the debate	<b>WEAKENS COLLECTIVE RESPONSIBILITY</b> Principles are not defended to critics
<b>SIGNIFICANCE OF VOTE</b>	<b>VITAL (CONFIDENCE OF THE HOUSE)</b> Failure leads to Govt Resignation	<b>VOICE VOTE</b> ensures govt survival but lacks deliberative depth

**UPSC MAINS IMPLICATIONS**

- \* Article 87(2) Interpretation
- \* Executive-Legislative Relationship
- \* Voice Votes & Parliamentary Friction
- \* Decline of Deliberative Democracy?

**Motion of Thanks**

**Motion of Thanks**

is a formal motion

moved in both the

Lok Sabha and

Rajya Sabha to

express gratitude

to the President for

their address to Parliament.

In the recent Lok Sabha session (February 2026), the passage of the Motion of Thanks without the Prime Minister's reply was a significant departure from parliamentary convention.

The last time that the Motion of Thanks to the President's address was passed without the PM's reply was in June 2004, when then-Prime Minister Manmohan Singh could not deliver his reply to the debate in the Lok Sabha following BJP protests.

### Reasons Given

- a. **Preventing a "Mishap":** The Speaker cited "concrete information" that certain Opposition members planned an "unexpected act" by rushing toward the Prime Minister's seat. He argued this intervention was necessary to uphold the dignity of the House and prevent a situation that could "completely destroy democratic tradition.
- b. **Indo-U.S. Trade Deal Protests:** The Opposition was engaged in "vociferous protests" regarding a major trade agreement, which they characterized as a "wholesale surrender" of Indian energy and data sovereignty.
- c. **Disallowing the LoP's Speech:** A primary trigger for the deadlock was the Chair "not allowing" the Leader of the Opposition (LoP) to complete his speech. Specifically, the LoP was restricted from

quoting excerpts from an unpublished memoir by a former Army Chief regarding border tensions

- d. **Charging the Treasury Benches:** Reports indicate that on the day prior to the vote, several women MPs from the Opposition had already charged toward the Prime Minister's seat with banners while another member was speaking.






- e. **"Black Spot" Conduct:** The Speaker described the behavior of Opposition members in his

chamber and the House as a "black spot" on parliamentary history, leading to the conclusion that a standard reply session was not feasible

- f. **Government Survival:** Despite the absence of a reply, the passage of the Motion was necessary for the government to demonstrate its continued majority and fulfill the mandate of **Article 87(2)**.

### Why is Motion of Thanks important?

- a. **Confidence of the House:** Since the President's Address represents the government's own policies and programs, a defeat of the motion in the Lower House is seen as a loss of majority.
- b. **Resignation:** If the motion is defeated (or if an Opposition amendment is passed), the government is constitutionally obligated to resign, as it proves they no longer enjoy the support of the House.
- c. **Collective Responsibility:** It reinforces the principle that the Council of Ministers is collectively responsible to the Lok Sabha (Article 75).
- d. **The Prime Minister's Reply:** By convention, the debate concludes with a reply from the Prime Minister, who must defend the government's record and respond to the Opposition's specific criticisms. Skipping this reply (as seen in recent rare instances) is often viewed as a dilution of this accountability

<b>'MOTION OF THANKS: DIVERGENT SIGNIFICANCE IN LOK SABHA &amp; RAJYA SABHA'</b>		
<b>Key Feature</b>	<b>Lok Sabha (Lower House)</b>	<b>Rajya Sabha (Upper House)</b>
<b>GOVERNMENT SURVIVAL</b>	<b>MANDATORY REQUIREMENT.</b> Failure to pass leads to government resignation. 	<b>NOT MANDATORY.</b> A defeat causes political embarrassment, but not a legal threat to the government. 
<b>AMENDMENTS TO THE MOTION</b>	<b>RARELY PASSED.</b> An amendment being carried signals serious cracks in the ruling coalition. 	<b>HAVE BEEN PASSED A FEW TIMES.</b> For example, in 2015, 2016, reflecting the opposition's majority. 
<b>PRIMARY ROLE &amp; FUNCTION</b>	<b>DIRECT TEST OF MANDATE.</b> The motion is a confidence vote in the government's policies and roadmap. 	<b>HOUSE OF REVIEW &amp; DELIBERATION.</b> It is a forum to review government performance and debate national policy. 

## 7. Bridging a divide with an 'Indian Scientific Service'

**Context:** India's post-Independence civil service rules prioritized generalist administrators to foster national stability and unity during early nation-building. Generalist IAS officers often oversee complex scientific domains without specialized training, leading to suboptimal policies on issues like environmental impact assessments or vaccine efficacy.

### Bridging Science-Administration Governance Gap

#### Structural Disparities in Career Evolution

While the **All India Services (AIS)** benefit from a clearly defined "cradle-to-grave" career progression—with structured training at every tier of seniority—scientific cadres often lack a standardized administrative framework.

- a. **Training Gaps:** Scientists are frequently placed in technical portfolios without formal induction into the nuances of governance, budgeting, or legislative procedures.
- b. **Career Stagnation:** Unlike the predictable promotion tracks of administrators, scientific progression can be siloed, often lacking a clear alignment between technical authority and administrative power.
- c. **Lack of Safeguards:** There is a notable absence of professional safeguards that protect the autonomy of scientific inquiry within a bureaucratic hierarchy.
- d. **Judicial Mandates: Science as a "Legal Shield":** In India, the judiciary (Supreme Court and National Green Tribunal) frequently steps into policy vacuums, especially regarding environmental and public health issues. This leads to "ad-hocism" in scientific inquiry.

#### Need for a step forward in scientific governance

As India is making progress, administration is no longer only about managing people and taxes, it is also foraying into technically intensive sectors, environmental protection, climate change, health disaster management, artificial intelligence etc. therefore scientists today are indispensable to government's functioning.

#### Gaps in recruitment and absorption of scientists

- a. **Integration of scientists in existing administrative system:** instead of creating a separate framework for scientists, they are absorbed into the existing administrative system as generalists governed by conduct rules, appraisal mechanism, Over time, this has limited the ability of scientists to exercise their professional role fully within governance structures.
- b. **Civil services (conduct) rules 1964:** While organisations such as the Council of Scientific

and Industrial Research, the Indian Council of Agricultural Research and a few others have separate rules for recruitment, assessment, and promotion, they continue to be bound by the Central Civil Services (Conduct) Rules, 1964, a framework designed primarily for administrative governance rather than scientific independence.

- c. **Limited institutional authority:** Despite strong scientific institutions and highly trained professionals, government scientists often have limited institutional authority relative to their expertise. Their inputs may not always carry formal weight in decision-making processes, particularly in technically complex sectors. This can result in cautious communication, limited documentation of uncertainty, and an over-reliance on science during crises rather than as a continuous input into policy formulation.

## Creation of Indian Scientific Services

The creation of an Indian scientific services, or ISS, offers a constructive way forward.

- a. The ISS could function as a permanent, all-India scientific cadre working alongside existing civil services.
- b. Scientists would be recruited through rigorous national-level selection and peer evaluation and placed within ministries and regulatory institutions as integral participants in decision-making.
- c. Separate scientific service rules would protect professional integrity, enable transparent recording of scientific assessments, and clarify the distinction between scientific advice and policy decisions.
- d. A possible structure for an ISS could include specialised cadres such as the Indian Environmental and Ecological Service, Indian Climate and Atmospheric Service, Indian Water and Hydrological Service, Indian Marine and Ocean Services, Indian Public Health and Biomedical Service, Indian Disaster Risk and Resilience Service, Indian Energy and Resources Service, Indian Science and Technology Policy Service, Indian Agricultural and Food Systems Service, and Indian Regulatory Science Service.

The ISS is not intended to replace administrative systems, but to complement them. Administrators ensure coordination and execution; scientists contribute evidence, risk assessment, and long-term perspective.

Many countries, which includes France, Germany, Japan, the United Kingdom and the United States have created distinct scientific cadres within government, with tailored service rules, career paths, and professional protections. These systems strengthen governance by ensuring transparent, independent scientific input into policymaking.

A governance system that does not fully utilise its scientific capacity risks long-term policy weaknesses. India's aspirations, to be a leader in climate action, environmental stewardship, public health, and technology, require institutions that value scientific evidence alongside administrative efficiency. What is needed is not additional committees or ad-hoc advisory bodies, but structural reform that clearly defines the role of scientists within governance and provides appropriate institutional safeguards.

## 8. How India's bonded labour system outlasted its abolition?

**Context:** February 9, 1976, marked an important milestone in equality in the Indian society with the enactment of the Bonded Labour System (Abolition) Act (BLSA). However, the nation's most vulnerable populations continue to be impacted by the shadow of monetary bondage and human servitude 50 years later.

Despite the law, only around 3 lakh people have been officially rehabilitated in the last 50 years.

Gig-economy and rising concerns around bonded labour

As India's economy shifts toward the digital age, will the growing 'gig economy' become the next frontier for labour exploitation?

- Over 90 per cent of the workforces in the informal sector, where there is weak regulation, the work happens without contract and with a lot of verbal agreements. It's also the kind of work where there is not much scrutiny happening in terms of compliance and matters of the state being involved closely with the way work happens in the sector.
- They belong to socioeconomically marginalised communities with very low literacy, poor resources. There are push factors such as agrarian distress or lack of employment opportunities locally, or they may be just simple things happening like debts have increased because of sickness in the family or bettings or debts, which pushes people into bonded labour.
- There are middlemen who lure such vulnerable persons into false promises. They may even give them some money, and promises such as work in bigger cities and high wages. Only after falling into trap people realize that they have been forced into bonded labour.

## Challenges that act as barrier in stopping bonded labour

- There is a lack of a victim-centric approach in our justice system. The justice system is broken in many ways to be able to address the justice needs of these people.
- The crime persists because of structural barriers to the kind of employment people are looking for and there are people who are profiteering from their vulnerability.
- Lack of gainful employment make people vulnerable to such traps.
- Institutions such as National Human Rights Commission is unable to take strict action against exploitation of these people as their recommendations are not legally binding.

As India enters a digitised phase of growth with number of people engaged in informal (gig economy) sector bound to increase in number It's really a time for policymakers to think through what kind of jobs are going to be created. Are these going to be decent jobs that are going to be gainful and productive, not just for individuals, but for a sustainable and inclusive economy that we are looking to build?

## Structural Gaps in Governance

- Weak Vigilance Committees:** The 1976 Act requires every district to have a "Vigilance Committee." In reality, many are non-functional or haven't met in years.
- The "Firefighting" Approach:** Similar to scientific input, the government often acts only after a media report or a Supreme Court order, rather than having a continuous system to identify and help vulnerable workers.
- Lack of Data:** There is a massive gap between the estimated millions in "modern slavery" and the few lakhs officially rescued and rehabilitated over the last 50 years

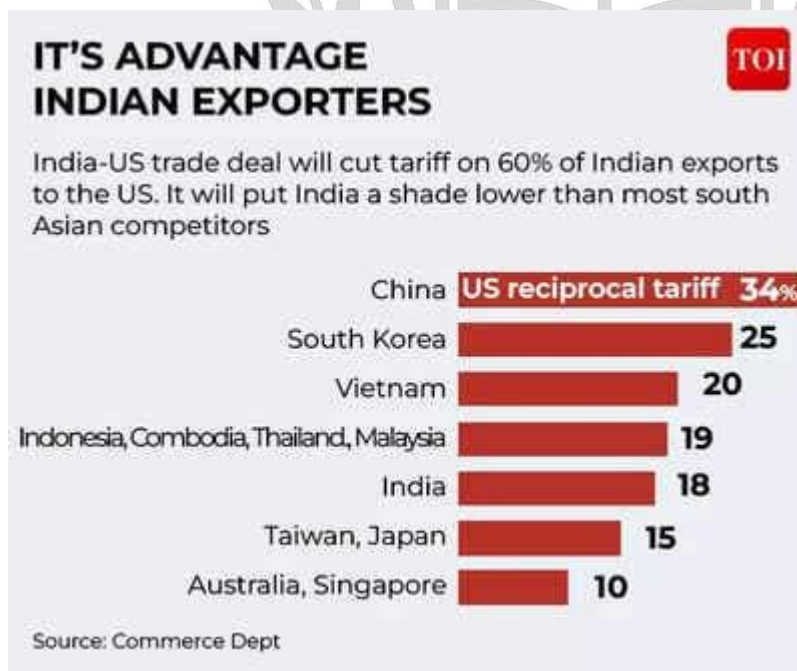
To fight human trafficking and bonded labor effectively, we must allocate proper budget and resources for training all key officials who enforce the laws. We also need a victim-focused justice system that shields witnesses from threats by the accused.

## International Relations

### 9. US tariff on India reduced to 18%

Context: The U.S. agreed to lower reciprocal tariffs on Indian goods from 50% to **18%**. In return, India will eliminate or reduce tariffs on a wide range of U.S. industrial and agricultural products,

including pecans, blueberries, cranberries, and distilled grains.



Key Highlights of the India-US Trade Deal

**a. Reduction in tariff:**

The US has cut its reciprocal tariff on imports from India from 25% to 18%. Even better, it has dropped the extra 25% penalty tariff—added in August 2025 over India's purchases of Russian oil. This lowers the overall tariff from about 50%

to just 18%.

**b. India Shifts Away from Russian Oil**

In a key diplomatic move, India has agreed to stop or sharply cut its purchases of Russian crude oil. Instead, it will buy more energy from the US and possibly Venezuela.

**c. Market Access:** India is set to drop its tariffs and other trade hurdles on US products to zero.

In return, the US anticipates a big boost in farm exports like tree nuts, cotton, and soybean oil to India's huge consumer market.

- d. **India Boosts "Buy American" for Big Purchases:** India has pledged to prioritize US products in government and major industrial buying. This could mean procuring up to \$500 billion in US energy, coal, tech, farm goods, and more.

**TIMELINE** **TOI**

**INDIA-US TRADE DEAL**

**FEB 13, 2025** | PM Modi and US President Trump set target to more than double bilateral trade to \$500 billion by 2030.

**MAR 4-6, 2025** | Commerce minister Piyush Goyal visits Washington DC; meets USTR Jamieson Greer and US

**APR 2, 2025** | US announces 26% additional import duty on Indian goods (10% baseline + 16% reciprocal).

**APR 9, 2025** | US suspends the 16% reciprocal tariff for 90 days (till July 9, 2025).

**JUN 26, 2025** | Indian delegation visits Washington to bridge differences ahead of the July 9 deadline.

**JUL 31, 2025** | US announces 25% duty on Indian goods, effective Aug 7, 2025.

**AUG 6, 2025** | US imposes an additional 25% tariff citing India's Russian oil purchases; total tariff rises to 50% (effective Aug 27).

**OCT 15-17, 2025** | Indian team in Washington; by now six formal rounds of talks completed.

**FEB 2, 2026** | India-US agree on a deal to cut US reciprocal tariffs on Indian goods to 18% from 25%.

**JAN 31, 2026** | Goyal says India is working to close the deal "quickly".

**Significance for India**

a. **Boost to Indian Exports:** The reduction to 18% restores competitiveness for Indian exporters. Sectors like textiles and apparel (which operate on thin margins) and pharmaceuticals are expected to see an immediate revival in orders.

b. **Competitive Edge:** At 18%, India now faces a more favorable rate than regional competitors like Vietnam (20%), Bangladesh (20%), and China (30-35%).

c. **Economic Stability:** The deal removes the uncertainty of a trade war, likely stabilizing the Rupee and encouraging FDI back into Indian manufacturing.

## India-USA Chronology of trade - Impact on India

a. **De-escalation of trade tensions:** The US cut its effective tariff on Indian goods from about 50% to 18% and removed the punitive 25% duty linked to Russian-oil purchases, easing pressure on Indian exports.

### b. Strategic re-alignment:

The deal signifies greater realignment with USA's geopolitical vision as India has agreed to scale down Russian oil imports, though it will protect its national interest.

### c. Deeper economic relations:

Commitments such as India's pledge to buy up to \$500 billion of US energy, coal, technology, and agricultural products over several years create long-term locking-in of supply-chain ties.

### Significance for India

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competitors like Vietnam (20%), Bangladesh (20%), and China (30-35%).

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## Challenges ahead

- a. **Strategic autonomy vs USA's expectations:** India's gradual scaling-back of Russian-oil imports and tilt toward US energy can strain its long-standing defence and energy ties with Russia, testing India's "multi-alignment" and strategic-autonomy posture
- b. **Hint towards transactional pattern:** The deal may encourage a transactional pattern where every strategic move (e.g., on Russia, China) is expected to yield clear economic payback, which can complicate India's foreign-policy flexibility.
- c. **Peril for domestic producers:** Reducing tariffs and non-tariff barriers to near-zero on many US goods may hurt domestic producers (in agriculture, textiles, pharma, and some manufacturing) and could trigger domestic opposition if not accompanied by strong WTO-compliant safeguards.
- d. **Concerns over visa and IT rules loom:** US concerns over visa rules for IT workers, data-localisation, and weak IP enforcement may keep friction in services and tech, limiting the full potential of the partnership.
- e. **Retaliatory impacts:** Closer alignment with the US may invite pushback from China, including retaliatory trade measures on items India depends on (such as rare earths, electronics, and APIs). India will also have to balance its role in the Indo-Pacific and QUAD with its participation in Russia-centric forums (like SCO), keeping its "de-hyphenated" policy plausible without alienating either camp.

A successful India–US trade agreement will not be judged only by how much tariffs are reduced. It will be judged by how well it balances both countries' development needs with their strategic goals, and whether it helps build a stable, reliable, and fair global economic system.

## 10. India-Israel

Context: The Indian Prime Minister undertook a landmark State visit to Israel, elevating bilateral ties to a "Special Strategic Partnership for Peace, Innovation & Prosperity."

### Key Outcomes of the Prime Minister of India State Visit to Israel

- a. **Cyber centre of intelligence in India:** A Letter of Intent was signed to launch the Indo-Israel Cyber Centre of Excellence in India, aimed at enhancing digital resilience, highlighting cutting-edge technologies, and forging ties across government, academia,



and industry.

- b. **Ethical AI and Education:** MoUs signed to advance ethical AI development, civilian uses, and public-private capacity building; plus AI-driven education emphasizing human-centered learning, innovative teaching, equitable access, and AI/data literacy integration

- c. **Technology & Defense:** A major initiative on Critical and Emerging Technologies was launched, led by National Security Advisors, focusing on AI, quantum, and biotechnology. A memorandum of understanding facilitates joint defense development and production.

- d. **Labor Mobility:** A pact was signed to enable the recruitment of up to 50,000 Indian workers over the next five years, addressing labor shortages in Israel.

- e. **Agriculture and Education:** Joint research calls for agriculture were expanded, and an Academic Cooperation Forum was established to facilitate student and faculty exchanges.

<p><b>INDO-ISRAELI TIES</b></p> <p><b>COMING OUT OF THE CLOSET?</b></p> <p>1 India established diplomatic relations with Israel in 1992 after decades of strident pro-Palestine position</p> <p>2 Defence ties zoomed upwards after Israel rushed emergency supplies to India during 1999 Kargil conflict</p> <p>3 Israel emerged as India's second-largest arms supplier after Russia, netting around \$1 billion in annual military sales. But the US has overtaken both Russia &amp; Israel recently</p>	<p><b>MAJOR ONGOING &amp; NEW PROJECTS</b></p> <p><b>MISSILE DEFENCE SYSTEMS</b>   Two joint DRDO-Israeli Aerospace Industries projects for surface-to-air missile systems with 70-km interception range. The one for Indian warships worth ₹2,000 crore, while ₹10,076 crore for IAF's air defence squadrons. Naval SAM ready and IAF one being developed</p> <p><b>ANTI-TANK GUIDED MISSILES</b>   India buying 321 Israeli Spike ATGM launchers &amp; 8,356 missiles for ₹3,200 crore. Initial buy could become much bigger with Bharat Dynamics slated for large-scale indigenous manufacture of third-generation ATGMs.</p>	<p><b>SPY DRONES</b>   Army getting another 16 Heron medium-altitude, long-endurance unmanned aerial vehicles for ₹1,200 crore. India has inducted over 100 Israeli drones of different types</p> <p><b>AIRBORNE WARNING &amp; CONTROL SYSTEMS</b>   India finalizing deal to acquire two more Phalcon AWACS for over \$1 billion. Three Phalcon AWACS, mounted on IL-76 aircraft, earlier inducted under \$1.1 billion tripartite agreement among India, Israel &amp; Russia in 2004</p> <p><b>AEROSTAT RADARS</b>   India to buy four more aerostat radars after inducting two EL/M-2083 radars inducted in 2014-2015 under a \$145-million deal</p>
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### Implications of the visit

- a. **Shared Stances on Security & Sovereignty:** India affirms Israel's right to self-defense, while Israel backs India's fight against cross-border terrorism—boosting mutual diplomatic clout and reliable partnerships in turbulent regions.

- b. **Defense Tech Powerhouse:** Israel's Boost to India: Israel ranks among India's top arms suppliers, delivering cutting-edge drones (e.g., Heron), air defense, missiles (e.g., SPICE bombs), and intel to sharpen military readiness and anti-terror ops. Joint R&D/co-production in electronic warfare and missile defense (e.g., SPYDER system) bolsters

India's self-reliance and modernization.

- c. **Security and intelligence cooperation:** India–Israel intelligence sharing has strengthened counterterrorism efforts and response to hybrid threats. After the 2008 Mumbai attacks, Israel provided satellite imagery and advanced surveillance systems, enhancing India’s situational awareness.

India-Israel trade has grown rapidly since 1992, diversifying beyond diamonds into high-tech sectors, though recent regional tensions caused a dip.

Year/Period	Bilateral Merchandise Trade (US\$ billion)	Key Notes
1992	0.2	Primarily diamonds
FY 2022-23	10.77 (peak)	Diversified into electronics, high-tech, comms, medical equipment
FY 2023-24	6.53	Decline due to security issues & trade disruptions
FY 2024-25	3.75	Continued decline from regional tensions
Future	-	2025 Bilateral Investment Treaty to boost FDI, fintech, startups; paves way for FTA

- d. **Agriculture and Water Management:** Israeli innovation in drip irrigation, water conservation, and precision agriculture has been scaled across India, improving Indian farmers’ efficiency, raising rural incomes, and addressing chronic water scarcity.

### Challenges in India-Israel relations

- a. **India’s de-hyphenation policy:** India maintains "de-hyphenation" (separate ties with Israel and Palestine). It supports Palestine traditionally, despite tensions over Israel's West Bank actions like Palestinian dispossession drawing global criticism.
- b. **India's Gulf Ties:** India depends on the Gulf Cooperation Council (GCC) for much of its crude oil and natural gas needs. Additionally, more than 9 million Indian expatriates live in the Gulf, sending home essential remittances that bolster the economy. Overly close

alignment with Israel could threaten these key energy and financial lifelines.

- c. **Hexagon Dilemma:** Israel's proposed "Hexagon" alliance—linking Israel, India, Greece, Cyprus, select Arab states, and others aims to formalize security and intel-sharing against "radical axes." Yet, joining such a bloc contradicts India's strategic autonomy, enabling balanced ties with the US, Russia, China, Iran, and Gulf states.

## Way Forward

1. **Advanced Defense & Intelligence Synergy:** The partnership will pivot from simple procurement to joint R&D and co-production of drones, missile systems, and cyber-defense tools. By institutionalizing high-level dialogues and expanding intelligence sharing, both nations can better address shared counter-terrorism and regional security challenges.
  2. **Economic Integration & Trade Growth:** To push bilateral trade past the current \$7–8 billion mark, the focus is on the full execution of the 2025 Bilateral Investment Treaty. This serves as a foundation for a future Free Trade Agreement, designed to reduce market barriers and stimulate reciprocal Foreign Direct Investment (FDI).
  3. **High-Tech Innovation & "I4F" Utilization:** Leveraging the India-Israel Industrial R&D and Innovation Fund (I4F), the two nations will prioritize breakthroughs in AI, biotechnology, and smart infrastructure. This ensures that technological exchange remains the primary engine of economic growth.
  4. **Multilateral Diplomacy via I2U2:** By integrating joint projects within the I2U2 framework (India, Israel, UAE, USA), India demonstrates that its ties with Israel provide tangible benefits to the broader Arab world. This multilateral approach offers a "diplomatic shield," proving that regional cooperation is not a zero-sum game.
  5. **Academic "Knowledge Corridors":** The strategy proposes formalizing Knowledge Corridors that link premier institutions like the IITs and IISc with Israeli research centers. This ensures a sustainable pipeline of talent and collaborative discovery in fundamental sciences
- By adopting a multi-sectoral and pragmatic approach, India and Israel can cement a partnership that respects geopolitical sensitivities while securing long-term strategic and innovation-driven growth.

## 11. India-Malaysia

Context: The Indian PM was on an official visit to Malaysia. The visit reaffirmed and operationalised the India–Malaysia Comprehensive Strategic Partnership (CSP), with wide-ranging agreements covering trade, digital economy, defence, energy, education, health, and regional cooperation, reflecting a clear intent to deepen ties amid shifting regional and global dynamics.



## Key outcomes

### a. Malaysia–India Digital Council (MIDC)

The leaders formalised the Malaysia–India Digital Council (MIDC) to drive cooperation in fintech, AI, cybersecurity, e-governance, and Digital Public Infrastructure. India’s NPCI (NIPL) and Malaysia’s PayNet agreed to link payment systems. This allows for seamless cross-border transactions using local currencies (Rupee and Ringgit).

- b. **Security Cooperation:** Established a direct link between National Security Councils to combat cybercrime, piracy, and extremism.
- c. **Military Support:** Agreed on Su-30 fighter jet maintenance and expanded joint UN Peacekeeping efforts.
- d. **Semiconductor Hub:** India and Malaysia have agreed to link their semiconductor supply chains. Malaysia (a global leader in testing/packaging) and India (a leader in design) are now co-developing technology and training workers.
- e. **Worker Welfare:** A Memorandum of Cooperation (MoC) was signed between India’s ESIC and Malaysia’s PERKESO to protect the social security rights of Indian workers in Malaysia.
- f. **Palm Oil & Food Security:** Malaysia reaffirmed its role as a reliable supplier of sustainable palm oil, with new plans for joint value-chain development.
- g. **New Consulate:** India announced the opening of a Consulate General in Sabah (Borneo Island) to strengthen commercial ties and support the diaspora in East Malaysia, near critical South China Sea lanes.
- h. **Big Cat Alliance:** Malaysia officially joined the International Big Cat Alliance (IBCA), an India-led initiative for wildlife conservation.

## India-Malaysia bilateral relations

The bilateral relationship between India and Malaysia has recently evolved into a Comprehensive Strategic Partnership (CSP) marked by PM’s visit to Malaysia in February 2026.

- a. India–Malaysia ties began over a millennium ago during the Chola period (9th–13th centuries). Under powerful rulers like Rajaraja I and Rajendra I, the Chola navy dominated maritime trade routes linking South India to the Malay Peninsula. These ancient naval and

commercial links laid the early foundation for India's deep, lasting interaction with Southeast Asia.

- b. **Economic ties:** Malaysia is India's 3rd largest ASEAN trading partner, with bilateral trade at USD 19.86 billion in 2024-25. Both promote local currency (INR and Ringgit) settlements to cut US Dollar reliance. Ties are guided by Malaysia-India Comprehensive Economic Cooperation Agreement (MICECA) and the ASEAN-India Trade in Goods Agreement (AITIGA).
- c. **Defence and Security:** India and Malaysia hold joint military exercises: Harimau Shakti (Army), Samudra Laksamana (Navy), and Udara Shakti (Air Force). They also have a security dialogue to discuss cooperation. Malaysia is a promising market for Indian defense items like Tejas jets and BrahMos missiles.
- d. **India-Malaysia Ties:** Malaysia supports India's Act East Policy and Indo-Pacific strategy. It leads ASEAN-India relations and helps uphold a rules-based order in the South China Sea.

### Challenges in India-Malaysia Relations

Political Tensions	Economic Hurdles	Other Issues
<ul style="list-style-type: none"><li>Malaysia criticized CAA &amp; Kashmir moves;</li><li>Zakir Naik extradition refused</li></ul>	<ul style="list-style-type: none"><li>India's large trade deficit from palm oil &amp; petroleum; Need to revise ASEAN-India Trade Agreement</li></ul>	<ul style="list-style-type: none"><li>Malaysia balances with China on SCS;</li><li>Quiet diplomacy vs India's firm stance</li></ul>

India-Malaysia relations have great potential despite some issues. Joint military drills, defense sales, and shared Indo-Pacific goals show promise. Recent 2026 talks point to stronger trade and security ties ahead.

## 12. India-France

**Context:** the President of France visited India and attended the Artificial Intelligence Impact Summit 2026 in February, where both countries elevated their ties to a historic “Special Global Strategic Partnership.



### India-France relations

India and France share a deep strategic partnership spanning defense, space, nuclear energy, and emerging tech like AI.

- a. **Economic ties:** Bilateral trade hit \$15.21 billion in FY25, with France as India's 11th largest FDI source at \$11.75 billion since 2000.

Focus areas include resilient supply chains, UPI in France, and joint ventures in tech and manufacturing.
- b. **Strategic Partnership:** The India–France Strategic Partnership, established in 1998, is founded on three key pillars, i.e., non-interference in internal affairs, commitment to strategic autonomy, and avoiding involvement in each other’s alliances and coalitions.
- c. **Scientific cooperation:** Thousands of joint research papers and funded projects advance fields like health, materials, and digital tech through new innovation centers.
- d. **Defence:** India and France share one of the strongest defense partnerships in the world. France is India's second-biggest arms supplier (after Russia), providing cutting-edge equipment that strengthens India's military. Major purchases include India bought 36 of these advanced fighter aircraft for the Air Force.
- e. **Civil Nuclear Cooperation:** India and France signed a civil nuclear cooperation agreement in 2008. Both nations have agreed to partner on cost-effective SMRs, supported by India's Rs 20,000 crore Nuclear Energy Mission for faster deployment.
- f. **Space and Aerospace Cooperation:** In 2021, ISRO and CNES signed a new space cooperation agreement at the Human Space Flight Centre (HSFC) in Bengaluru. India's space startups are benefiting from France's expertise in AI-based satellite applications.
- g. **Artificial Intelligence:** Both nations have unveiled the India-France Roadmap on Artificial Intelligence (AI), focusing on safe, open, secure, and trustworthy AI. Indian startups are participating in the French startup incubator Station F.
- h. **Maritime Cooperation:** Maritime collaboration is guided by the India-France Roadmap

on Blue Economy and Ocean Governance (2022). France, with its territories in the Indo-Pacific, aligns with India's vision of a free, open, and rules-based maritime order.

## Key highlights of French President's visit to India

### Bilateral Highlights

- a. **Defence and Strategic Cooperation:** Contract to procure 26 Rafale-Marine fighter jets finalized. Inauguration of H125 Final Assembly Line (TATA-Airbus) – first private sector helicopter facility in India. Constitution of a Joint Advanced Technology Development Group for emerging critical technologies.
- b. **Nuclear energy cooperation:** India and France are boosting nuclear energy ties, focusing on Small Modular Reactors (SMRs) and Advanced Modular Reactors (AMRs) per their 2025 agreement. This covers the full supply chain, including the Jaitapur Nuclear Power Plant project.
- c. **Scientific cooperation:** India and France launched an Innovation Network, plus new joint centers for digital sciences (with INRIA-DST) and advanced materials.
- d. **Indo-Pacific Partnership:** India and France are deepening ties under the Indo-Pacific Oceans Initiative (IPOI) and Indian Ocean Rim Association (during India's Chairship). They are also cooperating in trilateral formats with Australia and UAE.
- e. **Climate and Environment:** India and France hailed the success of the UN Ocean Conference in Nice (June 2025) and the BBNJ Treaty's entry into force. These steps advance ocean protection and marine biodiversity beyond national waters.
- f. **Health Cooperation:** India and France launched a joint AI research center for healthcare with Sorbonne University, AIIMS Delhi, and Paris Brain Institute. They also partnered PariSanté Campus with India's Centre for Cellular and Molecular Platforms, and linked Health Data Hub with ICMR.

### Strategic & Multilateral

- France reaffirms support for India's UNSC permanent seat; annual Foreign Ministers' Dialogue.
- India invited to 2026 G7 Summit (France) and Africa Forward Summit in Kenya.
- Horizon 2047 Roadmap for defense, space (3rd Strategic Dialogue), AI, and resilient supply chains.

### Challenges in India-France relationship

- **Delays:** Rafale, Scorpene, jet engines slowed by negotiations, policy shifts,

localisation.

- **Security Differences:** India's regional/non-aligned focus vs France's global stance (e.g., Russia-Ukraine).
- **Market Barriers:** France wants pharma/luxury/defence access; India seeks IT/agri/drugs entry. SPS rules block Indian exports.
- **AI and Data Clashes:** France backs strict EU GDPR; India prefers flexible DPDP Act 2023. Open-source AI, cyber norms differ.
- **Strategic Autonomy:** India's Russia ties (energy/defence) tension France's Ukraine support.
- **Immigration Hurdles:** Visa/work permit limits; qualification recognition issues for Indians.

India and France have now elevated their relationship to a “Special Global Strategic Partnership”, with the way ahead centred on a long-term Horizon 2047 Roadmap and a dense agenda across security, technology, climate, and multilateral governance. In practice, this means the partnership will deepen from a traditional bilateral-strategic model to a global, rules-based coalition in a multipolar world.

## 13. India-Greece bilateral relations



In News: The Defence Minister of India held talks with the Minister of National Defence of Greece in New Delhi. They signed a Joint Declaration of Intent (JDI) to boost defence industrial cooperation. This shows growing strategic ties between the two ancient maritime nations and strengthens their strategic partnership.

### Key Highlights of the India - Greece Bilateral Talks

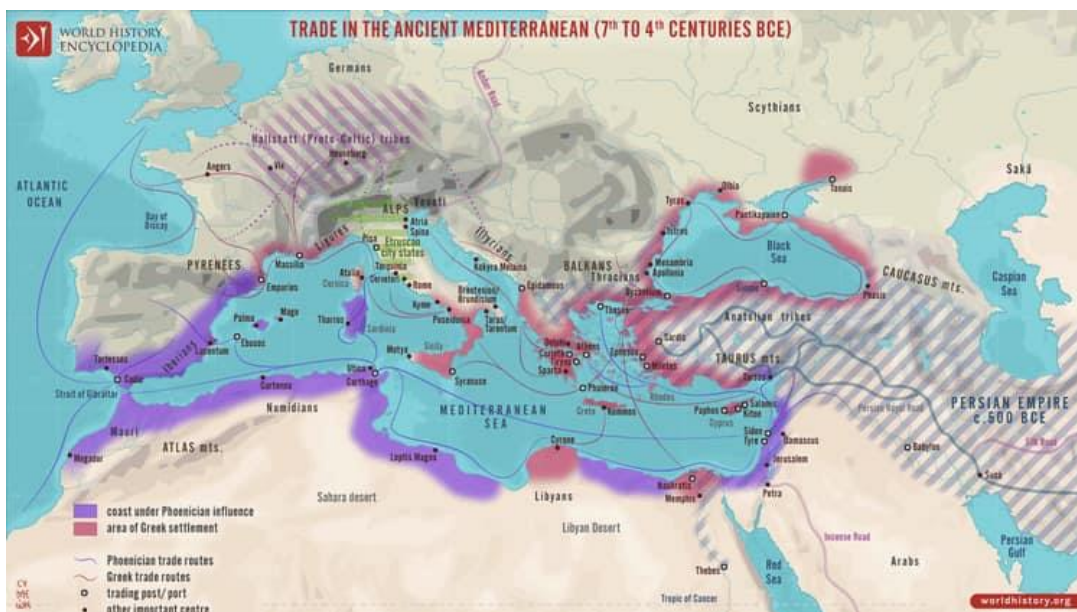
- a. **Joint declaration of intent:** India and Greece signed a Joint Declaration of Intent (JDI) to strengthen bilateral defence industrial cooperation, which will serve as the basis for a structured five-year roadmap for long-term collaboration. Both sides also exchanged the Bilateral Military Cooperation Plan for 2026, listing planned joint activities between their armed forces.

- b. Multilateral cooperation:** The partnership aims to connect India's 'Aatmanirbhar Bharat' (Self-Reliant India) initiative with Greece's defence-reform agenda under Agenda 2030, to boost the capacity of their domestic defence industries. By shifting from ad-hoc arrangements to sustained industrial cooperation, the move fits India's wider strategy of diversifying defence partnerships beyond traditional suppliers. Overall, these steps mark a clear shift from dialogue-based talks to structured, time-bound cooperation.
- c. Maritime Security Collaboration:** Greece has announced the deployment of a Greek International Liaison Officer at the Information Fusion Centre–Indian Ocean Region (IFC-IOR) in Gurugram. This step is intended to improve Maritime Domain Awareness (MDA) and information sharing, underlining the shared maritime interests of India and Greece in the Indo-Pacific and the Mediterranean.

## India–Greece Relations at a Glance

- India and Greece upgraded their ties to a “Strategic Partnership” in August 2023, marking a second phase of deeper political, economic, and security cooperation.
- Both countries enjoy strong political support on core issues: Greece backs India's bid for a permanent seat in the UN Security Council and on Kashmir, while India supports Greece on the Cyprus issue.
- **Trade and connectivity:** Bilateral trade is modest but growing; both sides aim to nearly double trade by 2030, with emphasis on pharma, ports, shipping, renewable energy, infrastructure, and chemicals. Greece is also being positioned as a key European gateway for India under corridor-style initiatives.
- **Defence and maritime security:** The two sides signed a Joint Declaration of Intent (JDI) on defence industrial cooperation and exchanged a Military Cooperation Plan for 2026, laying the ground for structured five-year collaboration. Greece has posted an International Liaison Officer at India's IFC-IOR in Gurugram to boost Maritime Domain Awareness and information sharing in the Indo-Pacific and Mediterranean.
- **People-to-people and institutional links:** Regular high-level visits, cultural exchanges, and discussions on a Migration and Mobility Partnership Agreement (MMPA) are strengthening human-to-human ties. The relationship is rooted in shared civilizational links but is now being re-oriented as a modern, rules-based,

Indo-Pacific/Mediterranean-centric strategic partnership.

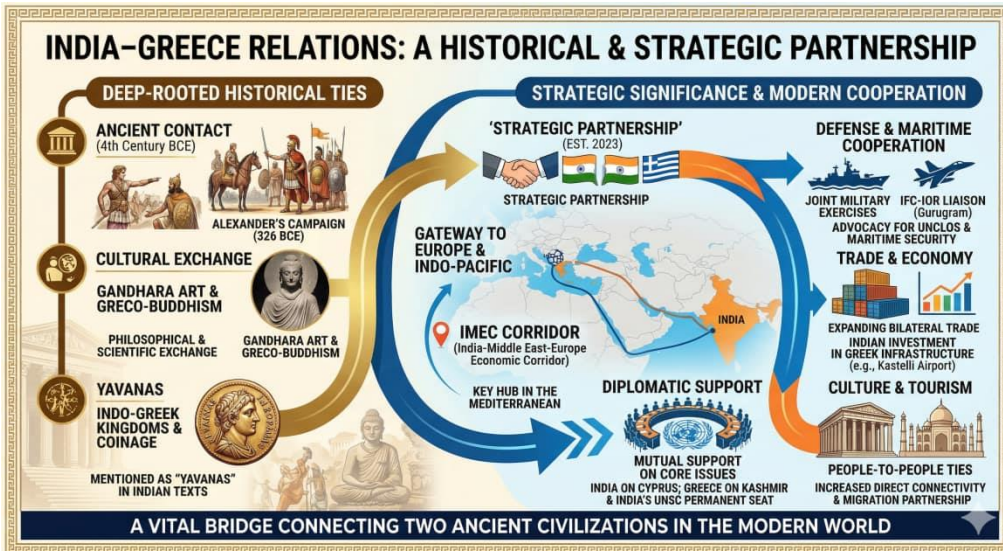


Historical Linkages: India–Greece ties go back nearly 2,500 years, with trade links between the **Mauryan Empire and Greece reflected in ancient coinage and texts.**

- In 326 BC, Alexander reached northwestern India up to the Hyphasis (Beas River) and fought Raja Puru, King of Pauravaa (between the Jhelum and Chenab) and King Ambhi who ruled at Taxila.
- The Mauryan dynasty was contemporary to Alexander. Chanakya's Arthashastra mentions the Greek (Yavana) ambassador Megasthenes at Chandragupta Maurya's court.
- The Gandhara school of art later emerged as a blend of Indian and Greek cultural influences.

**Significance of India-Greece relations**

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## 14. India, Ireland strengthen ties to build future-ready digital partnership

**Context:** India and Ireland held a Bilateral Meeting to Deepen Cooperation in Telecom and Emerging Digital Technologies in New Delhi.

Discussions centered on strengthening ties in telecommunications, digital infrastructure, emerging technologies, and regulatory frameworks, underscoring the robust friendship between the nations.



### Highlights of the meeting

During a recent high-level bilateral meeting, India's Minister for Communications underscored the transformative shifts in the telecommunications landscape, driven by rapid adoption of 5G, AI, and data sovereignty measures.

The discussions focused on deepening cooperation across critical areas:

- **Digital Infrastructure:** Joint efforts to accelerate 5G rollout, spectrum harmonization, and next-generation broadband networks to bridge urban-rural divides.
- **Emerging Technologies:** Collaboration on AI governance, cybersecurity frameworks, quantum computing, and satellite communications, with emphasis on ethical standards and interoperability.
- **Regulatory Synergies:** Alignment on data privacy (e.g., India's DPDP Act and EU GDPR equivalents), cross-border data flows, and investment-friendly policies to attract FDI in tech sectors.
- **Capacity Building:** Knowledge exchange programs, skill development in semiconductors and IoT, and innovation hubs linking startups from Dublin's tech ecosystem with Bengaluru's Silicon Valley

Both sides reaffirmed commitments to a rules-based digital order, countering geopolitical challenges like supply chain disruptions. Ireland positioned itself as a gateway for Indian firms into Europe via its EU membership and multilingual talent pool, while India offered scale for Irish enterprises in consumer tech and digital public goods (e.g., UPI, Aadhaar-inspired identity systems).

### ITU Bid Support Request

India requested Ireland's backing for its candidacy to host the ITU Plenipotentiary Conference (PP-2030), the highest decision-making body of the International Telecommunication Union (ITU) that sets global telecom standards and policies every four years.

This bid underscores India's ambition to lead international telecom governance from the Global South, building on its growing digital influence through DPI successes like UPI.

### Global Digital Discourse Leadership

Both nations aim to spearhead a democratic alliance in global digital governance, prioritizing inclusive and ethical frameworks amid rising geopolitical tech divides.

This involves aligning on standards for AI ethics, data sovereignty, cybersecurity, and bridging the digital divide to ensure technologies serve human rights and sustainable development.

By collaborating, they seek to counterbalance non-democratic influences, promote interoperable systems (e.g., open standards for data flows), and foster innovation hubs that empower startups and

rural connectivity worldwide.

Securing the event would position India as a hub for shaping future protocols on AI-native networks, spectrum allocation, and equitable tech access.

Looking ahead, the partnership aims for concrete outcomes: MoUs on 6G R&D, joint standards for edge computing, and a bilateral digital trade agreement by 2027. This alliance not only bolsters economic resilience but also positions both nations as leaders in a multipolar digital economy.



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## Health

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### 14. Death by cyberchondria

A woman, scared by online videos claiming mouth ulcers meant incurable cancer, killed her young children and tried to take her own life. This heartbreaking case shows how cyberchondria which means endless internet health searches that feed anxiety. This is becoming a real danger as social media spreads medical myths faster than facts.

**Doctor-Patient Disconnect-** The underlying issue

Social media now scares people with health fears automatically. Old search engines only gave info when people searched for it. This growing difference makes patients worry much more than what doctors actually find.

**Symptom Misinterpretation:** Common symptoms often link to cancer in search results, causing unnecessary panic since online tools can't assess patient history or perform physical exams.

**Historical Precedent:** Hypochondria predates internet; people once imagined illnesses from newspaper articles, now amplified by endless digital content.

**Medication Distrust:** Patients question treatments after reading extensive side effect lists online, especially sensitive ones like sexual performance issues.

**Minority but Impactful:** Cyberchondriacs represent a small patient group, while most seek doctor reassurance, yet mental health support remains inaccessible for many.

#### Why Cyberchondria is Rising?

Cyberchondria surges when everyday stresses meet endless online health information

- a. **Life Stressors:** Grief, family illness history, new parenthood, burnout, or big changes like relocation heighten fears, making symptom googling a desperate comfort seek.
- b. **Health anxieties and un-certainties:** Pre-existing worries (like past panic attacks) amplify minor symptoms into catastrophes, especially without coping tools.
- c. **Easy access:** Smartphones mean no "off switch"—anxiety refreshes endlessly unlike limited doctor visits

- d. **Trust Gaps:** Distrust in systems pushes reliance on relatable (but unqualified) social media voices over distant experts.
- e. **Younger Generations:** High social media use, sleep disruption, and emotional regulation struggles in youth fuel spirals.
- f. **Women & Mental Health:** Higher vulnerability in females, those with anxiety history, amid limited therapy access.

## Challenges emerging from cyberchondria:

- a. **Social challenges:** Fuels widespread anxiety, depression, addiction-like internet use, and eroded trust in healthcare, fracturing doctor-patient bonds. Additionally, it burdens the ER and worsens the diagnosis further worsening public health especially during a pandemic.
- b. **Vulnerable section becomes more vulnerable:** women, children, and low-income groups which are already vulnerable become more susceptible to cyberchondria, as a result they become more vulnerable.
- c. **Productivity loss:** self-diagnosis and misinformation spreads fear, and as a result the person loses interest in work, and falls into a state of anxiety which ultimately results in loss of productivity.
- d. **Regulation Gaps:** Demands new rules for AI content moderation, digital literacy mandates, and platform accountability amid free speech tensions.
- e. **Public Health Strain:** Complicates crisis response (e.g., COVID info floods), requiring massive awareness campaigns and verified info hubs.

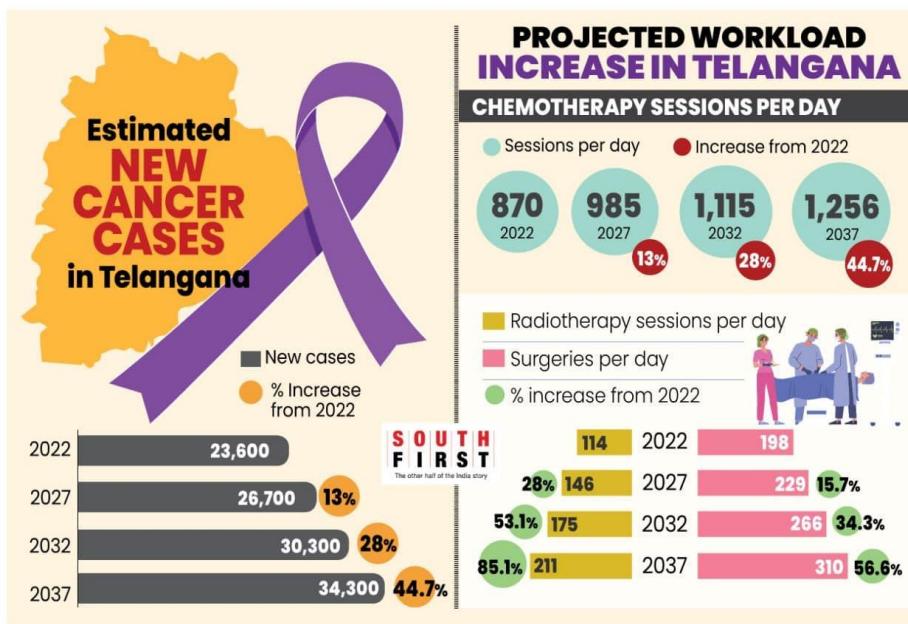
## Way Forward

- a. **Digital Literacy Drives:** Scale school/workplace programs teaching fact-checking, algorithm awareness, and "prebunking" manipulation tactics.
- b. **Tech & Platform Fixes:** Mandate AI fact-checks, real-time corrections, helpline prompts, and reduced fear-mongering recommendations.
- c. **Therapy Adaptations:** Promote accessible CBT apps targeting cyberchondria, plus community support for vulnerable groups.
- d. **Policy Push:** Governments enforce verified health content labels and fund mental health integration with digital access.

Everyone must work together to balance online freedom and health safety. Tech companies should act ethically, governments should pay for education programs, and communities should give caring support. Only then can we trust doctors again instead of fearing online health scares.

## 15. Rising cases of cancer cases in Telangana- Doctors stress early detection.

**Context:** according to figures shared in the Lok Sabha during the Winter session of the Parliament, Telangana has recorded a steady rise in cancer cases over the past decade, increasing from 40,177 in 2015 to 52,334 in 2024, signalling a growing public health burden in the State.



Findings

- **Rising Cases & Types:** A steady increase in cancer cases is observed, with a high incidence of head and neck cancers, largely linked to tobacco use, lifestyle, and environmental factors

**Most Common Cancers:** Breast cancer is the leading cancer among women in Telangana (36.2%), followed by cancers of the cervix uteri (8.1%), ovary (6.6%), and oral cavity (5.2%).

**Lack of Screening:** A concerning finding shows only 0.3% of women have undergone breast examinations, highlighting a huge gap in early detection, according to an ICMR-NCDIR report.

- **Why Early Detection?** Early detection significantly increases survival rates and treatment success. Modern treatments, including laparoscopic and robotic surgery, are more effective if the cancer is caught early.

### Positive trends

#### Early Detection Gains

- More patients now seek treatment at early stages instead of waiting for advanced

Stage 3/4.

- Reflects success of public awareness campaigns and outreach programs.
- Government adviser notes this shift as "good sign" of changing patient behavior.

## Socio-Economic Barriers to Early Cancer Detection

- **Limited Awareness of Free Services:** Many women remain unaware of government-provided free screening programs for breast and cervical cancers, missing opportunities for early intervention that could be life-saving.
- **Economic Pressures Cause Delays:** Daily wage earners prioritize immediate family needs over health checkups, leading to neglect of symptoms until cancers reach advanced, expensive-to-treat stages.
- **Need for Wider Screening Reach:** Routine population-level screening must expand beyond urban centers to rural areas, using mobile units and community health workers to achieve cure rates through early detection.

## Cancer as Biological Spectrum

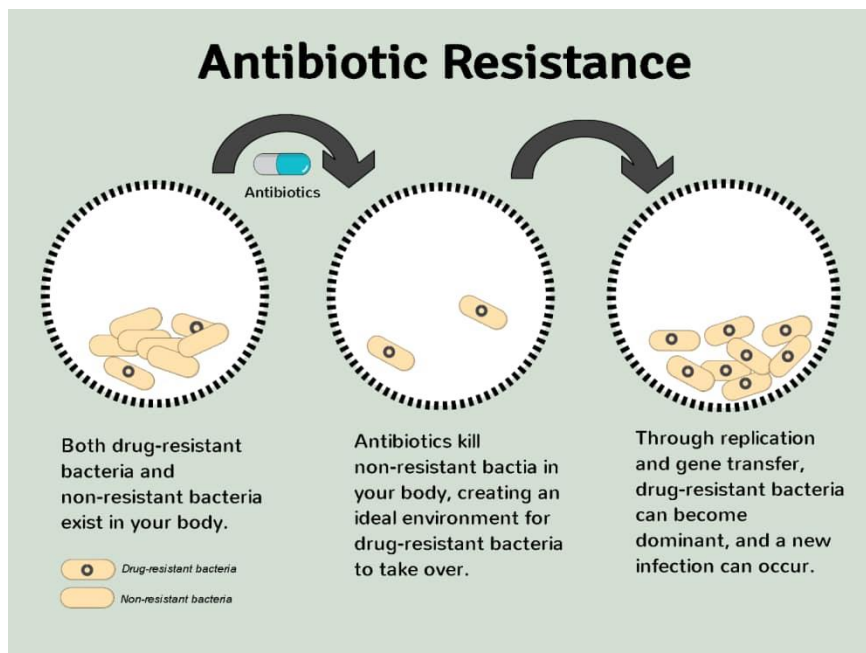
Oncologists now recognize cancer not as one disease but hundreds of distinct subtypes, each with unique genetic mutations, growth patterns, and responses to treatment. This shift from "one-size-fits-all" chemotherapy to precision medicine tailors therapies based on tumor biology, receptors (like HER2 in breast cancer), and molecular markers identified through biopsy analysis.

## Advanced Treatment Modalities

- **Targeted Therapy:** Drugs attack specific cancer cell mutations (e.g., EGFR inhibitors for lung cancer) while sparing healthy cells, reducing side effects compared to traditional chemo.
- **Immunotherapy:** Boosts patient's immune system to recognize and destroy cancer cells (e.g., checkpoint inhibitors like Keytruda), offering durable remissions for melanoma, lung, and some breast cancers.
- **Organ-Preserving Surgery:** Techniques like lumpectomy (breast) or transoral robotic surgery (throat cancer) remove tumors while maintaining function and appearance.
- **Precision Radiation:** Stereotactic body radiotherapy (SBRT) delivers high-dose radiation to tumors with millimeter accuracy, minimizing damage to surrounding tissues.

## 16. Indian Scientists make affordable dipstick test to track AMR in sewage

Context: Scientists from the Translational Health Science and Technology Institute (THSTI), Faridabad, have developed an affordable way to check for antimicrobial resistance in sewage. Checking sewage is a cheap, ethical way to track antibiotic resistance in communities. For a huge country like India, we need affordable tests to stop its spread.



**Antimicrobial Resistance (AMR)** occurs when microorganisms (bacteria, viruses, fungi, parasites) evolve to resist medicines, rendering treatments ineffective and creating "superbugs". It is a major global health threat (top ten WHO) and a "silent pandemic" driven by misuse in humans/livestock, poor

sanitation, and industrial discharge

India's city sewage contains high levels of antibiotic-resistant germs which the researchers confirmed. Just as importantly, they created a cheap, accurate test for detecting this that works well in poor and middle-income countries.

### Dipstick Test

- The dipstick works like a rapid diagnostic test, detecting amplified resistance genes from sewage DNA using PCR-based amplification and visible colour-band readouts.
- Each dipstick detects 16 resistance genes and provides results within two hours, enabling time-efficient, field-friendly surveillance without advanced laboratory infrastructure.
- The platform is upgradeable within three days if new resistance genes emerge globally, ensuring adaptability to evolving microbial threats.

## Public health and governance dimension

- India is recognized as a global AMR hotspot by WHO, with high infectious disease burden and widespread antibiotic access without prescriptions.
- AMR threatens procedures like surgeries, chemotherapy, and organ transplants, where effective antibiotics are critical for infection prevention.
- Low-cost surveillance supports India's National Action Plan on AMR (NAP-AMR) goals on monitoring and containment.

## Core Problem

- Bacteria resist antibiotics, causing deadly infections and surgery complications
- Fewer effective drugs available for treatment

## Sewage Advantage

- Monitors antibiotic use from hospitals, farms, and communities
- Provides early warning of emerging resistance hotspots
- Ethical and cost-effective way to track population-level trends

Sewage-based dipstick testing offers India an affordable, scalable weapon against the growing AMR crisis, thereby, turning wastewater into early warnings that can save lives and healthcare systems before resistance spirals out of control.

## Economy

### 17. Tale of two consumers; rural aspiration vs. Urban caution

**Context:** Village people feel hopeful and buy more than just needs. City people stay careful with money, even with steadier incomes. RBI survey shows this rural-city gap in January 2026.

#### Rural vs Urban Consumer Confidence (Jan 2026 RBI Survey)

Aspect	Rural Sentiment	Urban Sentiment
<b>General Economy</b>	Optimistic about overall economic conditions	Pessimistic about economic situation
<b>Employment</b>	Positive outlook on job opportunities	Negative view on employment prospects
<b>Income Levels</b>	Concerned about income growth	Concerned about income growth
<b>Price Levels</b>	Worried about rising prices	Worried about rising prices
<b>Overall Index</b>	Positive sentiment category (above baseline)	Negative sentiment category (below baseline)

Rural consumers' optimism about economy and jobs drives their positive overall index, while urban consumers' broader pessimism keeps theirs negative.

Urban consumers exhibit deepening pessimism regarding the economic situation and price levels compared to the previous survey round. Conversely, rural consumers demonstrate strengthened positive sentiment toward the general economic conditions and employment opportunities.

#### Rural Aspiration

- Driving Consumption: Rural consumers are increasingly spending on non-essential,

lifestyle goods, showing improved optimism.

- Factors: This shift is fueled by a normal monsoon, agricultural income, and government policy initiatives.
- Outlook: Rural consumer sentiment has improved steadily, with rural future expectations now exceeding urban levels.

## Urban Cautiousness

- Conservative Spending: Despite enjoying slightly better income stability, urban consumers are acting conservatively, limiting discretionary purchases.
- Slowing Demand: Companies relying on cities for growth are experiencing a slowdown in demand, particularly for premium and branded goods.
- Persistent Caution: Urban wallets remain closed for many non-essential items, even as overall confidence fluctuates.

This disparity is transforming the market, with rural demand providing a new, consistent growth engine, while urban areas struggle with inflationary pressures and a more cautious consumer mindset.

## Significance of the finding

This data signifies a K-shaped consumption pattern in India's economy as of early 2026: rural households are driving growth via rising aspirations and non-essential spending, while urban households are constraining demand despite relatively better incomes.

## What the rural–urban split implies

- Rural-led demand revival: Strong monsoon-linked farm incomes, government transfers (PM-KISAN, MGNREGS), and better credit access are lifting rural purchasing power, pushing more villages into discretionary-goods markets (consumer durables, electronics, branded FMCG).
- Urban caution despite income stability: Urban consumers face high housing, education, and living-cost pressures, persistent job insecurity in services, and high EMI burdens, so they prefer saving or paying down debt rather than increasing non-essential spending.
- Demand-side growth is uneven: Aggregate consumption is being supported from the bottom (rural) rather than the more traditional, higher-ticket urban demand; this reduces export dependence but risks inflation if rural-driven demand outpaces supply.

## Policy and structural implications

- Urban-focused job creation (especially in manufacturing and stable services) and

inflation containment (especially food prices).

- Rural-side upgrades in productivity, MSMEs, and value chains so that welfare-driven demand shifts toward sustainable income-driven consumption.

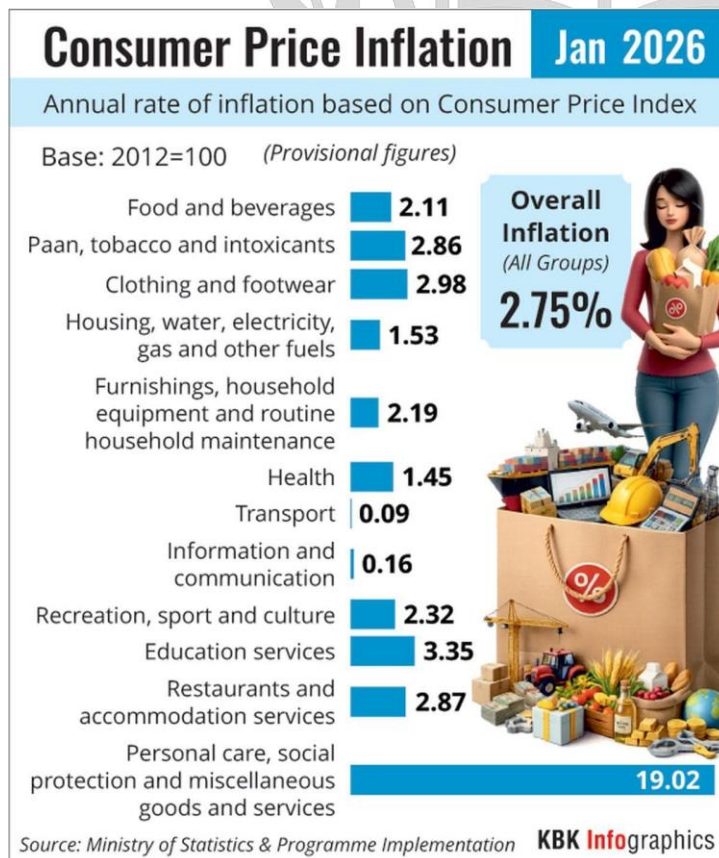
In essence, the data points to a “rural-first” consumption recovery rather than a broad-based, balanced upturn, underscoring that India’s consumption engine is currently more aspirational and credit-supported in villages, while urban pockets remain in a precautionary-saving mode.

## 18. New CPI Series

**In News:** the Ministry of Statistics and Programme Implementation (MoSPI) released India’s first retail inflation data under the new Consumer Price Index (CPI) series (Base Year: 2024=100).

Inflation rate- 2.75%

Need for new series



### a. Economic

#### Transformation:

India's economy shifted significantly since the 2012 base year, with rising services share, digital consumption expansion, cleaner fuels like CNG/PNG, changing dietary patterns, and online marketplaces growth. The old series failed to reflect these, leading to inaccurate inflation signals for RBI's 4%  $\pm$ 2% targeting.

### b. Policy

#### Relevance

CPI guides RBI monetary decisions, dearness allowance revisions, poverty estimates, real income calculations, welfare transfers, and GDP deflation.

Updating ensures precise calibration for fiscal and monetary policy amid structural changes.

### c. Obsolete base rate

The 2012 base became outdated after over a decade, necessitating a 2024 base using 2023-24

Household Consumption Expenditure Survey (HCES) data for current household spending patterns.

- d. **Methodological change:** The series replaces the old 6 broad groups with 12 divisions under the UN's Classification of Individual Consumption by Purpose (COICOP) 2018, adding 43 groups, 92 classes, and 162 subclasses. This granular structure—endorsed by the UN Statistical Commission—classifies spending by purpose (e.g., food, housing, health), enabling finer inflation tracking across services and goods for better RBI policy signals and international comparability.
- e. **Expanded basket:** Items grew from 299 to 358 (308 goods, 50 services), reflecting modern consumption like value-added dairy, barley products, pen drives, external hard disks, exercise equipment, attendants, babysitters, and streaming services. This broadens services coverage (from 40 to 50 items), capturing India's rising digital and discretionary spending amid economic shifts.
- f. **Rural housing inclusion:** For the first time, rural house rent enters the basket (previously urban-only), using monthly market data while excluding employer/government-provided dwellings to reflect true rental inflation. Housing weight rises to 17.67%, addressing rural-urban gaps and providing stabler signals as rural consumption grows.
- g. **Online data collection:** Prices now include weekly data from 12 major cities' e-commerce platforms (e.g., for airfares, OTT subscriptions), collected via Computer Assisted Personal Interviewing (CAPI) on handheld devices. This supplements 1,465 rural and 1,395 urban markets, boosting timeliness, validation, and accuracy for e-commerce's role in India's retail landscape.

## Significance of the change

India's economy has changed a lot in the last 10 years. For instance, services now make up a bigger part of spending, people buy more digital items, cleaner fuels like CNG are more common, food habits have shifted, and online shopping has grown rapidly.

The new CPI matches today's spending patterns, making inflation data more accurate and useful.

It helps the RBI set better interest rates, governments plan budgets precisely, adjust wages fairly, link welfare payments correctly, and calculate true GDP growth

Importance of CPI

CPI plays a key role in RBI's interest rate decisions and government planning.

## RBI Monetary Policy

- CPI is the main inflation gauge for RBI's Monetary Policy Committee (MPC).
- It targets 4% inflation (with 2% up or down range) to control prices and growth.
- Accurate CPI helps RBI set interest rates right.

## Fiscal and Wage Adjustments

- Governments use CPI to revise Dearness Allowance (DA) for employees.
- It estimates poverty levels and calculates real incomes.
- Welfare payments like pensions get updated based on CPI

## Smoother Signals

- Food prices swing wildly, but their weight dropped (from ~46% to 37%).
- This cuts short-term ups and downs in headline inflation.
- RBI gets clearer, stable signals for long-term policy.

India's new CPI (base 2024=100) is a key statistical reform. It matches modern spending patterns and global standards, improving inflation data for policymakers. Continuity, credibility, and transparency will keep it reliable under RBI's inflation-targeting framework. Ultimately, it recalibrates cost-of-living measurement for a changing economy.

## 19. Creative Industries as growth engines



**Context:** The creative industries have gained prominence after the Union Budget 2026-27 and Economic Survey 2025-26. These documents forecast a need for 2 million AVGC professionals by 2030 and propose 15,000 Content Creator Labs in schools to nurture talent.

### Orange Economy

The Orange Economy refers to economic activities driven by human creativity, culture, and intellectual property—turning ideas into valuable products. It covers industries where imagination

creates jobs and wealth, blending traditional arts with modern technology.



## Orange Economy as growth engines

### Employment Generation

- Creates millions of direct jobs for artists, designers, coders, and performers, plus indirect roles in tourism and events.
- Supports 10M+ livelihoods; creative pay 88% above average, absorbing youth from non-metro areas.
- AVGC-XR projected for 2M jobs by 2030 in Tier-2 cities like Pune.

### Export Potential

- Digital platforms enable global sales of games, VFX, music, and content (20% export growth in 2023).
- Diversifies beyond IT; design leads creative goods exports at 87.5%.
- Builds forex earnings and India's global brand.

### Urban and Tourism Boost

- Festivals, concerts spike local hospitality, transport, retail (e.g., 40% hotel rise from 2025 events).
- Revitalizes cities like Jaipur, Mumbai; boosts property values up to 30%.
- Links to \$28.9B tourism industry.

### Innovation Spillovers

- Tech from gaming/VFX applies to healthcare, education, defense (e.g., Unreal Engine)

simulations).

- Grassroots ideas scale via govt programs like GIAN.
- Fuels \$5T economy ambition with 7% annual M&E growth to ₹3T by 2027.

## Soft Power Gains

- Content like RRR enhances cultural diplomacy and tourism.
- Positions India as creative hub, attracting FDI and global circuits.

India is shifting to a strong "Orange Economy," turning imagination into a powerful, growing industry. By connecting school training to global markets, it converts youth potential into creative jobs and wealth. Soon, "Created in India" will match "Designed in California" worldwide.

## 20. GOBARDHAN Scheme

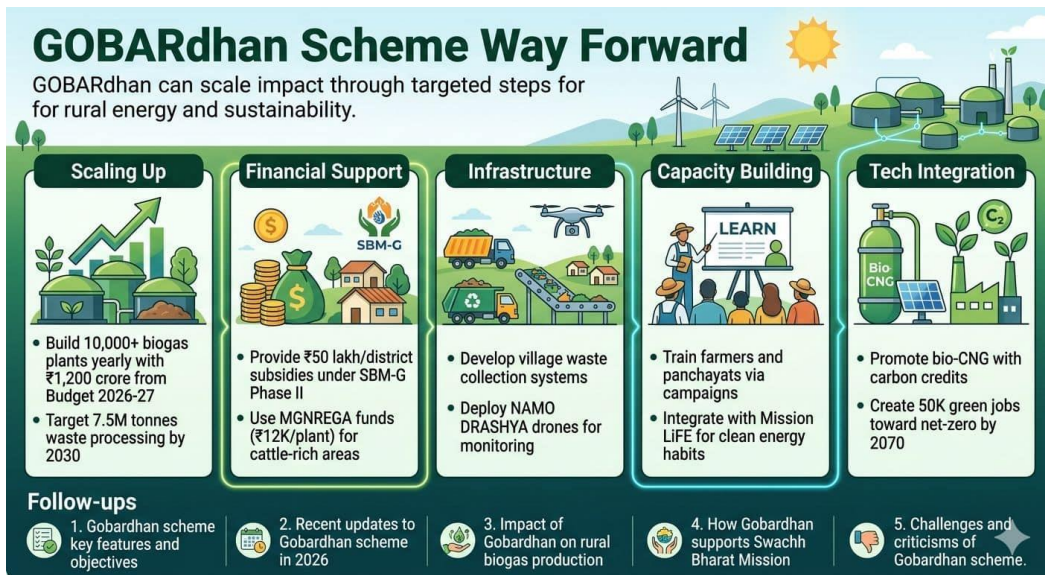
**Context:** Galvanizing Organic Bio-Agro Resources Dhan (GOBARDhan) scheme was launched under Swachh Bharat Mission (Grameen) in year 2018. GOBARDhan is an integral component of solid waste management under SBM(G) for ensuring cleanliness in villages by converting bio-waste including animal waste, kitchen leftovers, crop residue and market waste into biogas and bio slurry to improve the lives of villagers.

GOBARDhan projects support biodegradable waste recovery by incentivizing Gram Panchayats to convert cattle dung and solid agricultural waste into biogas and bio-slurry.

Government expanded it via NAMO DRASHYA portal, integrating drone tech for waste mapping and biogas monitoring in villages

### Significance of the scheme

- Energy Security:** Transforms cattle dung and organic waste into biogas for cooking fuel, cutting LPG dependence and fossil fuel imports in villages.
- Waste Management:** Addresses 1.5B tonnes annual agricultural waste, reducing pollution and methane emissions while promoting Swachh Bharat goals.
- Rural Livelihoods:** Creates jobs in plant setup/maintenance (50K+ green jobs targeted), boosts farmer incomes via organic manure sales.
- Circular economy:** Links animal husbandry, energy, and agriculture; supports net-zero by 2070 through carbon credits and bio-CNG.



## 21. DISCOMS and Road ahead

**Context:** Power Distribution Companies (DISCOMs) are crucial for delivering electricity and fueling economic growth. Recent reforms have boosted their finances and operations, yet deep-rooted structural and governance issues threaten their long-term viability.

Improvements in DISCOM:

- Financial recovery:** DISCOMs achieved positive Profit After Tax in 2024–25, ending years of losses through stronger revenue collection and financial discipline.
- Loss Reduction:** Aggregate Technical & Commercial (AT&C) losses dropped sharply due to better infrastructure, anti-theft measures, and improved billing systems boosting recovery rates.
- Revenue-cost balance:** The gap between Average Cost of Supply (ACS) and Average Revenue Realised (ARR) narrowed significantly, signaling progress toward self-sufficiency.
- Reform-driven gains:** Revamped Distribution Sector Scheme (RDSS) and Late Payment Surcharge Rules enforced discipline, modernized networks, and cleared legacy dues.
- Operational upgrades:** Smart meters, digital billing, and automation enhanced transparency, cut errors, and improved service delivery

**Persistent Challenges in DISCOM Performance**

- a. **Subsidy Dependence and Fiscal Strain:** Heavy reliance on state government subsidies and loss takeovers masks true profits, straining public finances and hindering financial independence.
- b. **Distorted Tariffs and Political Pressures:** Tariffs fixed below cost-recovery levels due to political compulsions, with free power schemes worsening consumption patterns and financial health.
- c. **Inadequate Metering and Data Gaps:** Unmetered agricultural supply and weak data systems obscure loss assessment and consumption tracking, impeding planning and oversight.
- d. **Escalating fixed costs:** Rising employee salaries, pensions, and pending pay revisions build long-term liabilities, squeezing operational flexibility.
- e. **Governance and Accountability weaknesses:** Political meddling and lack of professional management erode transparency, efficiency, and accountability for sustained reforms.

## Way Forward for Sustainable DISCOM Reforms

- a. **Strengthen Financial Autonomy:** Gradually phase out subsidies by linking them to performance benchmarks like AT&C loss reduction. Enforce timely tariff revisions through independent regulators to ensure cost recovery.
- b. **Accelerate Technological Upgrades:** Mandate 100% smart metering, prioritizing agricultural and industrial consumers, with integrated data analytics for real-time monitoring. Expand RDSS investments in grid modernization, automation, and loss-minimizing infrastructure.
- c. **Enhance Governance and Accountability:** Appoint professional boards with fixed tenures, minimizing political interference via clear separation of ownership and regulation. Implement performance-linked incentives for DISCOM management and strict penalties for delays in payments or reforms.
- d. **Promote Efficiency and Consumer Focus:** Rationalize free power schemes with targeted direct benefit transfers to vulnerable groups, curbing misuse. Curb fixed cost escalations through workforce optimization, pension reforms, and outsourcing non-core functions.

- e. **Foster Policy Support and Monitoring:** Central government to provide viability gap funding tied to milestones, with annual public dashboards for transparency. Build capacity via training programs and partnerships with private players for operational expertise.

## 22. India's industrial shift- Electrons over molecules

Context: Factories and vehicles have long run on "molecules" like oil, coal, and gas, burned for energy. Now, the shift is to "electrons"—clean electricity. Countries switching fastest will reduce pollution and grab the best supply chains, investments, and jobs.

China is way ahead. It's adding solar and wind power super fast, and changing factories to use electricity from the grid instead of fuel. In 2024, almost half of China's factory energy was electricity while India's was only about a quarter. This helps China sell more goods abroad and handle rising fuel costs better.

Electrons Vs. Molecules

- a. **Molecules vs. electrons:** Molecules like oil, gas, LPG, coal, and biofuels are burned right where they're used for eg. in engines for trucks. This direct combustion creates heat and motion but wastes energy as exhaust and heat. Electrons, on the other hand, flow through the power grid to electric motors and equipment, offering precise control without on-site burning.
- b. **Electrons over molecules:** Switching to electrons unlocks advanced automation, like smart robots and sensors for real-time monitoring. It gives factories tighter control over processes, reducing errors and waste.
- c. **Efficiency gain:** Electric motors are far superior: they turn over 90% of electricity into motion or work, with minimal waste. Internal combustion engines manage only about 35%, losing the rest as heat and fumes. So, boosting electricity use by even 1% displaces far more fuel energy, amplifying savings in cost and emissions.
- d. **Industrial energy from electrons:** China dominates with nearly 50% of its factory energy from electricity, including a high portion of green sources like solar and hydro. The US and global average hover at 12%, relying more on on-site fuels. India trails at just 7%, keeping factories molecule-heavy and vulnerable to oil price swings. This "quantity and quality" lead gives China resilient, low-carbon manufacturing.
- e. **Economy:** Overall, China, the US, and EU each electrify about one-third of their economies (homes, transport, industry). But China strategically funnels more electrons into industry—its

factories get priority grid access and clean power upgrades. As the world's top exporter, this fortifies competitiveness: buyers in Europe or the US increasingly demand low-carbon goods, and China's electron-powered factories meet that scrutiny head-on.

## China's transformation

- a. **China's Grid Investments Drive Electron Shift:** Since 2010, China has poured massive capital into generation, ultra-high-voltage transmission, flexible substations and grid-scale storage. The result is a structural tilt toward electrons across industry.

Cement electrification: China has electrified grinding mills, materials handling and deployed digital controls. Waste-heat-recovery systems typically contribute 30-35 kWh per tonne of cement. Calcination emissions remain unavoidable, making CCUS pilots essential. India can follow a similar pathway.

## Critical gaps in India

India has doubled grid capacity in a decade and is a global leader in annual solar additions. Yet, industrial electrons remain around one-quarter of energy use, and green electrons just 7%-8% of final energy.

- a. **Reliance on On-site combustion locks in molecule use:** Old factories and machines built for direct burning of fuels like coal or gas (on-site combustion) are "locked in" to using molecules. Retrofitting them for electricity is costly and complex, so they stick with fuels, slowing the shift to clean electrons.
- b. **Uneven power quality and reliability discourage firms from designing all-electric processes:** Unstable and spotty electricity supply stops companies from switching fully to electric machines and processes. As a result firms add diesel generators as backup, staying hooked on fuels (molecules). This blocks the move to clean grid power (electrons). India needs to fix this first.
- c. **Policy focuses more on generation than on electrifying industrial processes:** Policies prioritize building more power plants over helping factories switch to using electricity. Factories stay fuel-dependent (coal, gas onsite). No incentives, subsidies, or standards exist to electrify operations. China succeeds by pairing grid buildout with factory mandates; India needs similar targeted policies for steel, cement, etc.

## Way forward

India needs targeted actions to electrify key industries and catch up to leaders like China, boosting efficiency, cutting emissions, and staying competitive globally.

- a. **Steel Sector Steps:** India makes 30% of steel via electric arc furnaces (EAFs)—far below the

US's 70%. Boost scrap metal collection, sorting, and trading to ramp this up fast. Add incentives for EAFs powered by renewables, as the EU's CBAM tax hits high-carbon steel imports.

- b. **Cement sector:** Fund trials of electric kilns, big waste-heat recovery systems, and carbon capture hubs. Aim to slash fuel use by 20% per tonne of cement this decade while scaling carbon capture technology.
- c. **MSME transition:** Small firms rely on coal boilers and diesel generators. Provide cheap loans for electric alternatives, group buys for green power contracts, and expert help to switch.
- d. **Digitization role:** Build smart controls into new factory zones. They cut waste, balance grid demand, and track emissions data that global buyers now require.

## Digital Controls in Factory Zones

- Embed in new clusters: Integrate smart systems from the start in planned industrial areas.
- Cut waste: Advanced sensors optimize energy use, reducing unnecessary power loss.
- Balance grid demand: Enable factories to adjust usage during peak times, easing grid strain.
- Track emissions: Generate verifiable carbon data for global buyers demanding proof of low emissions.

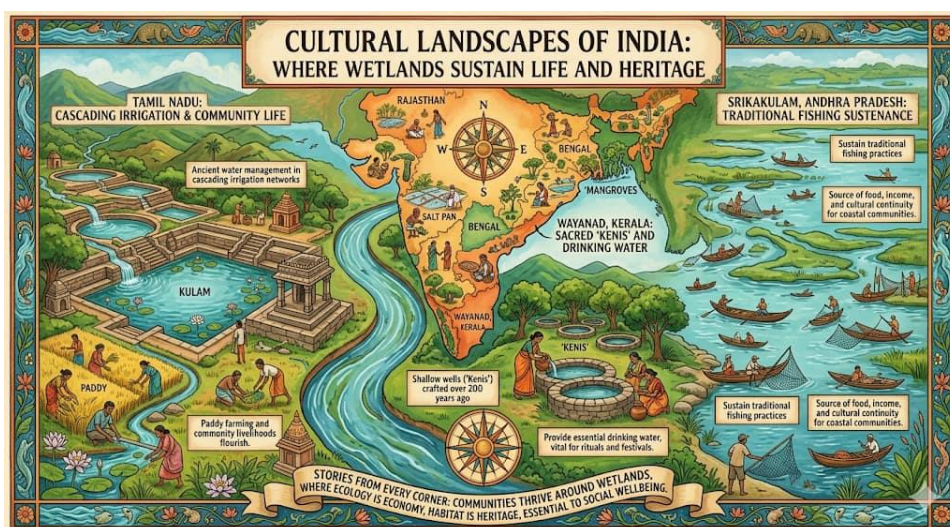
India must learn from China: prioritize green electrons in industry. Launch a national mission for industrial electrification with higher grid investments, new park mandates, and MSME finance. This avoids CBAM penalties, secures exports, and claims the electron-powered future.

\*\***CBAM** stands for Carbon Border Adjustment Mechanism. It's the EU's carbon tariff on high-emission imports like steel and cement, fully active since 2026, to ensure foreign goods face the same carbon costs as EU products.

## Environment and Ecology

### 23. Wetlands as National public good

Context: On February 2, 2026, World Wetlands Day was celebrated globally under the theme "Wetlands and traditional knowledge: Celebrating cultural heritage."



Wetlands offer many benefits, but they are highly threatened as they lie where land, water, and human development meet.

#### Wetlands

Wetlands are areas where water shapes the land, plants, and animals. They span freshwater marshes, coastal mangroves, urban ponds, riverbanks, natural lakes, and high-altitude bogs.

#### Why wetlands matter?

These are highly productive zones offering food, clean water, fibre, flood protection, erosion control, climate balance, and groundwater recharge. They sustain fishing, farming, drinking water, jobs, and wildlife making them vital yet fragile.

#### Wetland Policy Framework

- Wetlands (Conservation and Management) Rules, 2017: Legal basis for identifying, notifying, and controlling harmful activities in wetlands. Success hinges on accurate mapping and strict enforcement.
- National Plan for Conservation of Aquatic Ecosystems (NPCA): Updated guidelines emphasize planned, monitored, results-driven management and

science-backed restoration.

- c. **Coastal Regulation Zone (CRZ) Framework:** Safeguards coastal wetlands' natural balance against development pressures through effective rules.

## Wetland loss

- Scale: Nearly 40% of wetlands gone in last 30 years; 50% of survivors show ecological damage.
- Natural wetlands lost to roads, buildings, and real estate.
- Wetlands depend on timing and flow of water. Dams, embankments, channelisation, sand mining, and groundwater over-extraction disrupt these flows and damage wetland character.
- Floodplains are treated as spare land rather than active river space.
- Urban wetlands are burdened with flood control, storm runoff, and sewage inflows, often without legal buffers
- Untreated sewage, industrial effluents, agricultural runoff, and solid waste cause eutrophication.
- Sea-level rise, cyclones, and shoreline change combine with ports, tourism, aquaculture, and settlement growth.
- Mangroves and lagoons face pressure from both landward development and rising seas.
- State wetland authorities are understaffed and underfunded

## Wetland conservation

- a. **Catchment management:** Protect entire upstream areas to control silt, pollution, and water flow entering wetlands.
- b. **Strong enforcement:** Fully notify and geo-tag all wetlands using GIS for legal protection. Additionally, strict penalties under 2017 Rules and court directives should be imposed.
- c. **Community participation:** use of traditional knowledge in preserving wetlands, and ensuring sustainable tourist activities, livelihood around wetlands.
- d. **Urban Planning Integration:** Design "Sponge Cities" preserving wetlands as natural flood buffers.

## 24. Fading of India's environmental jurisprudence

Context: Recent developments show a slow but systematic weakening of ecological safeguards. The Chief Justice stayed a controversial order suo motu, protecting the Court's reputation. The Aravallis issue is more than wordplay over definitions. It shows a big change in how we see growth, nature's place, and government's duty under the Constitution.

### Mountains to Mangroves: 2025 changes in EIA

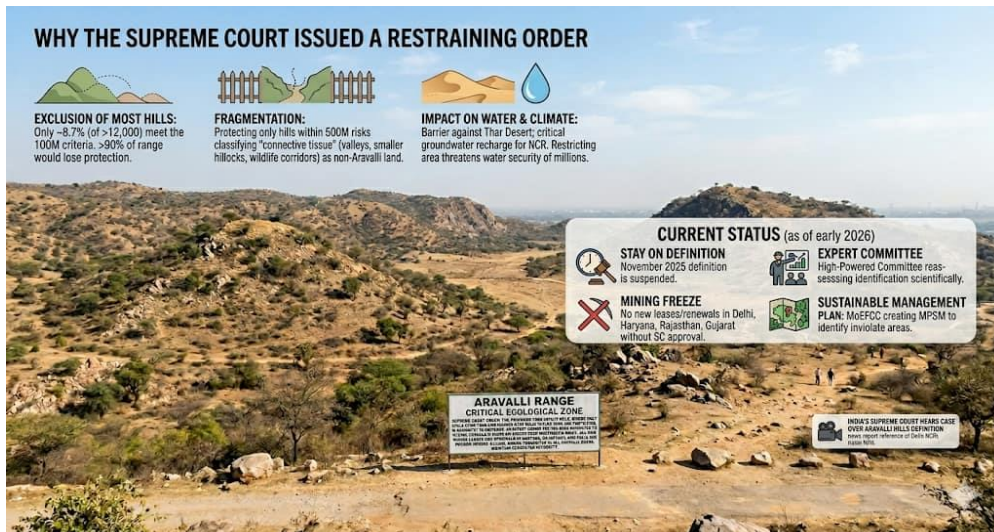
- a. **Changes in EIA (Environment Impact Assessment):** New rules let mining projects get approval without sharing full details on location and size. This cuts public checks and openness.
- b. **Retrospective approvals allowed:** Vanashakti vs Union of India (2025) reversed the earlier ban on retrospective environmental clearances. Weakens deterrence principle.
- c. **Soft-protection:** The 2017 Common Cause ruling said environmental violations can't be legalized later. Recent court softness has undone this protection.
- d. **Bureaucratic paper work:** Environmental compliance has become mere bureaucratic paperwork, not a robust shield for ecosystems.

### Aravali Definition debate

- Height Limit Issue: Courts now accept hills over 100 meters as Aravallis, shrinking protected areas.
- Change from Past: Earlier rulings rejected narrow definitions, stressing full ecological links.
- Precautionary Rule Ignored: 1996 Vellore case banned fake ecological boundaries.
- Constitutional Risk: Weak definition violates Article 21 (right to clean environment) and Article 48A (state's duty to protect nature).

### Mangrove Ecology threat

- Court Approvals: Allows cutting or moving ~34,000 mangrove trees for roads and buildings.
- Key Roles: Mangroves block floods, store carbon, and shield coasts from storms.
- False Fix: Planting trees elsewhere can't match mature mangrove benefits.
- Urban Danger: Coastal cities like Mumbai show this regulatory weakening clearly.



## Impacts of Infrastructure in Fragile Areas

### Landslide and Erosion Risks

Roads and dams in Himalayas or hills trigger landslides, destabilize slopes, and worsen floods.

### Ecosystem Disruption

Cuts habitats, blocks wildlife paths, pollutes rivers, and fragments forests.

### Biodiversity Loss

Construction destroys species-rich zones like mangroves or wetlands, hard to restore.

### Climate Amplification

Emissions from projects speed warming; fragile zones lose natural carbon sinks.

### Social Costs

Displacement, livelihood loss for locals; uneven benefits favor big projects over communities.

## Science and technology

### 25. Centre lays down eligibility criteria for deep tech start-ups

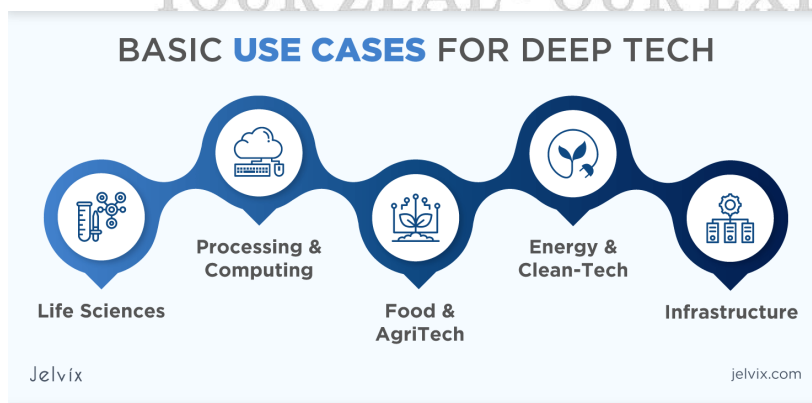
**Context:** The Department for Promotion of Industry and Internal Trade DPIIT has launched a new "Deep Tech Startup" category with relaxed eligibility rules to match their long development timelines. A recent gazette notification officially defines what qualifies as a deep tech startup in India.

#### Deep-tech start-up

Deep tech startups build breakthrough solutions using cutting-edge science or engineering advances, like AI, biotech, robotics, or quantum tech. Unlike app-based startups, they focus heavily on R&D, face long development timelines (often 10+ years), need massive funding for labs/prototypes, and create novel patents to solve tough real-world problems.

#### Deep Tech traits

- R&D focus: Most spending on Research and Development, not marketing.
- IP-driven: Owns unique Intellectual Property (patents) or tech nearing commercialization.
- High risk/reward: Long gestation (slow profitability), high capital needs, technical uncertainty.
- Eligibility: Up to 20 years as "startup," turnover less than 300 Crore, DPIIT (Department for Promotion of Industry and Internal Trade) certification required.



## Significance of deep-tech start-ups

- a. **New discoveries:** Deep tech drives science and tech breakthroughs that reshape industries. For example, Alexander Fleming's 1928 penicillin discovery launched antibiotics, slashing infection deaths.
- b. **Economy booster:** Innovations like generative AI could add \$1 trillion to India's GDP by 2030. They fuel Industry 4.0, helping India become a developed nation.
- c. **Self-reliance:** Deep tech strengthens key sectors like defense, energy, and healthcare. It cuts dependence on others—China's DeepSeek AI shows how it counters US chip export bans.
- d. **Reliable for Indian challenges:** Homegrown deep tech tackles local issues: cheap healthcare, clean energy, language AI, and bridging North-South gaps.

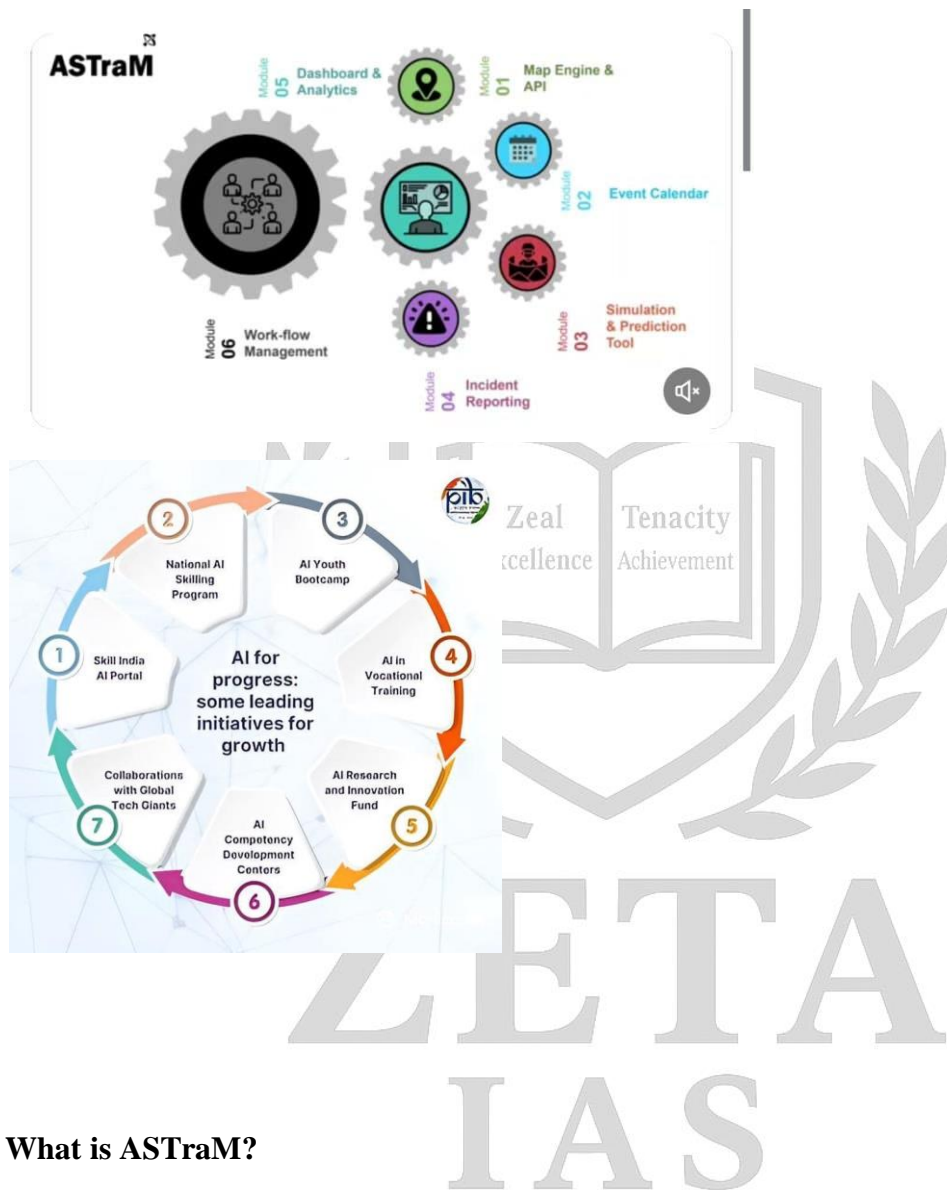
## Challenges

- a. **Shortage of Funds:** Heavy R&D costs and long timelines create a "valley of death" between prototype and market. Investors prefer quick returns, while deep-tech start-ups require patient, high-risk capital.
- b. **Long Development Cycles:** Years of research, testing, and iteration before revenue—unlike app startups.
- c. **High uncertainty:** Many projects fail technically.
- d. **Talent Gaps:** Need rare mixes of scientists, engineers, and business experts. Hard to attract/retain top researchers vs. MNCs.
- e. **Regulatory Hurdles:** Complex IP filing, certifications, and sector rules (biotech, drones, genomics). Bureaucratic delays slow innovation.
- f. **Scaling Barriers:** Weak industry-academia links hinder tech transfer. Limited labs, infrastructure in Tier 2/3 cities.
- g. **Market Adoption:** Customers slow to trust unproven tech.

## 26. ASTraM- AI based System

Context: The ASTraM (AI for Seamless Traffic Management) system grabbed headlines when former Dutch Prime Minister Dick Schoof visited Bengaluru Traffic Management

Centre to study it firsthand. This AI platform has drawn global attention for predicting and easing urban congestion in real time.



## What is ASTraM?

ASTraM is an advanced AI-based big data platform designed for macro-level traffic management.

Unlike traditional GPS applications that only show current traffic, ASTraM acts as a smart traffic engine that provides holistic, real-time situational awareness to city authorities.

## Developed by

The system was developed through a collaborative effort between the Bengaluru Traffic Police and Arcadis, a prominent Dutch design and consultancy firm.

## Aims and Objectives

- The primary objective of ASTraM is to transform traffic policing from a reactive model (responding to complaints) to a proactive, data-driven model.
- It aims to reduce congestion, improve road safety, and streamline incident reporting through automated intelligence.

## How it Works?

The platform functions by pooling massive amounts of data from various streams

- **Data Integration:** It ingests live feeds from CCTV cameras, Automatic Number Plate Recognition (ANPR) systems, and open data sources.
- **Analysis:** The AI engine processes this data to identify patterns in both recurring (daily bottlenecks) and non-recurring (accidents/protests) congestion.
- **Communication:** The system batches detected issues and sends automated alerts to relevant traffic officers at 15-minute intervals, ensuring localized intervention.



## Geography

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### 27. Strait of Hormuz

In News: Rising tensions in West Asia and the Israel-Iran conflict have led to a sharp disruption of shipping traffic through the Strait of Hormuz, raising concerns about global energy supply and oil prices.



#### Strategic importance of Strait of Hormuz

The Strait of Hormuz is a key shipping route between Iran (north) and Oman/UAE (south). It links the Persian Gulf to the Arabian Sea.

At its tightest, it's just 33 km wide—small but handles massive global ship traffic.

#### Global Energy Lifeline

Over 20% of world oil and gas passes through it daily. Gulf nations like Saudi Arabia, Iran, Iraq, Kuwait, and Qatar depend on it to sell their energy worldwide. This makes it vital for trade and a hotspot for geopolitical tensions.

Major high pressure routes include:

- Strait of Malacca – vital for trade between East Asia and Europe.
- Bab-el-Mandab Strait – located at the entrance to the Red Sea.
- Suez Canal – connects the Mediterranean Sea with the Red Sea.

- Panama Canal – connects the Atlantic and Pacific Oceans.
- Bosphorus and Dardanelles Straits – link the Mediterranean and Black Seas.

These chokepoints play a crucial role in determining the efficiency and security of global shipping routes.

### **Current status of global traffic in Strait of Hormuz**

- Recent tensions in West Asia have badly hit ship traffic through the Strait of Hormuz.
- After attacks involving the US, Israel, and Iran, traffic dropped by about 95%.
- Around 600 ships are now stuck nearby, with more vessels attacked—making shipping firms very wary.

- **Global seas and key straits like Hormuz are open to ships from all nations under international law.**
- **Coastal countries manage nearby waters but can't block major shipping routes.**
- **Tensions make passage risky, so firms skip it to avoid damage or loss. Insurance costs have jumped 10-15 times as a result.**

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## Society

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### 28. A Panchayat's dream and murder of a daughter

**In News:** a 6-year-old girl's body was found in Telangana's Nizam Sagar canal on January 29. Police arrested the father, who confessed to killing his firstborn daughter.

#### Motive of murder

To reduce their three children to two, allowing the wife to contest local panchayat elections under Maharashtra's strict two-child norm for candidates.

#### Maharashtra's election rules

- **Two-child norms:** Candidates for sarpanch or gram panchayat member must have no more than two living biological children (born after the cutoff date, usually post-1995). Stepchildren do not count toward this limit.
- **Education Requirement:** Those born on/after January 1, 1995, need at least Class 7 pass (or equivalent) to contest sarpanch or member posts.
- **Age and basics:** Must be at least 21 years old and an Indian citizen with no criminal convictions.
- **Reservation:** Seats rotate via lottery or draw; for example, OBC (women) quota applies in some cycles, up to 27 percent, but the total for SC, ST, and OBC combined must not exceed 50 percent.

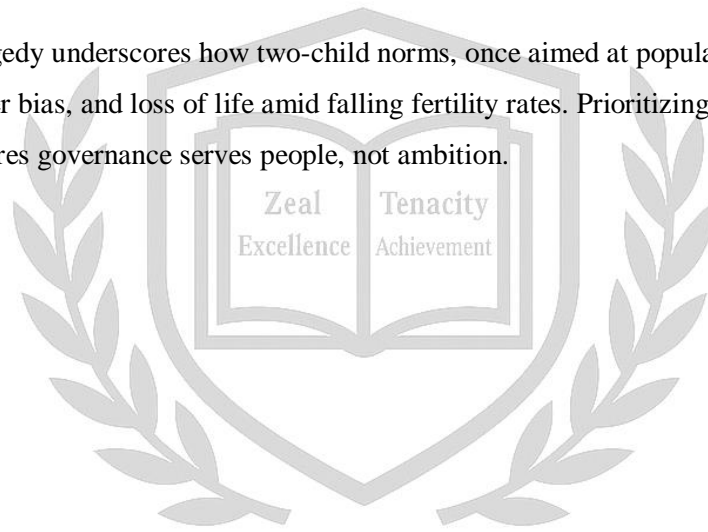
#### Social Implications of this incident

- a. **Pressure on families:** Policies linking political eligibility to family size push desperate acts like infanticide, especially targeting girls in patriarchal setups.
- b. **Gender biasness:** Favoring sons (here, sparing the boy) worsens female feticide and neglect, undermining women's safety
- c. **Policy backlash:** Meant for population control, rules now spark debate—some states like Rajasthan scrap them amid coercion fears and falling birth rates.
- d. **Community impact:** Breaks trust in governance; highlights need for reforms balancing democracy without harming vulnerable kids.

Recent cases like Nizamabad highlight urgent need for reform. States like Rajasthan and Telangana have scrapped the norm to prevent coercion and boost participation.

- Abolish or relax two-child limits via amendments, as fertility rates drop naturally.
- Shift to incentives: Education campaigns and family planning rewards over penalties.
- Community workshops on rights and ethics in politics.
- Promote gender equality to end son preference.
- Invest in rural jobs/education to reduce election desperation.
- Pilot voluntary norms with monitoring for real population goals.

The Nizamabad tragedy underscores how two-child norms, once aimed at population control, now fuel coercion, gender bias, and loss of life amid falling fertility rates. Prioritizing child rights and ethical politics ensures governance serves people, not ambition.



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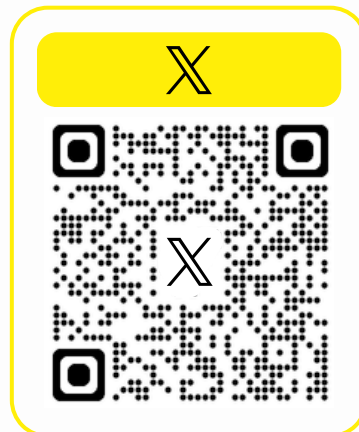
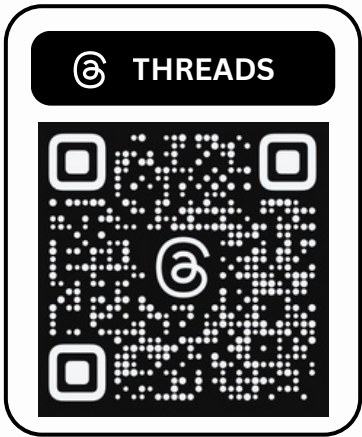
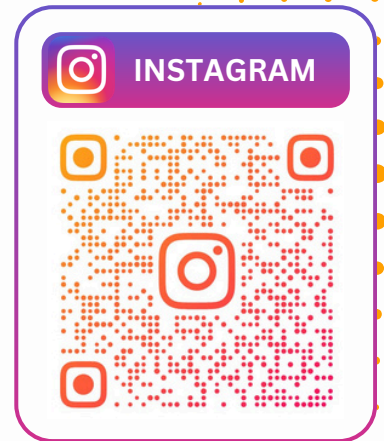
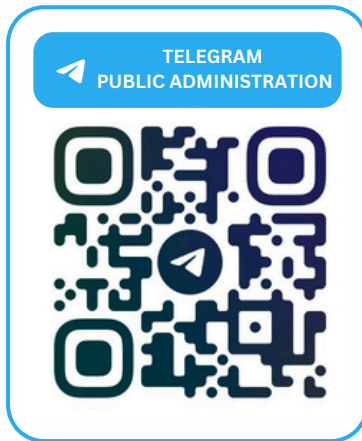


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- Strategic & Resource Dependency Theory.
- PDT - W.Sachs & A. Escobar & ADT.
- Gender Perspectives in Public Administration.

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