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FOR CSE 2026

IMPORTANT EXPLAINERS
OCTOBER 2025

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MAINS GUIDANCE
PROGRAM WITH MENTORSHIP
GS Mains 2026
Under the guidance of S Ansari

LUKMAAN IAS
...Celebrating 14 years of its establishment

The Program Details:

- **21 Classes**
- **13 Tests**

08 Feedback Sessions

- ✓ RCVA Class Timing: 5PM to 8 PM
- ✓ Current Affairs Revision Classes: 4 PM to 8 PM
- ✓ Test Timing: 10 AM to 1 PM (Flexi timing)
- ✓ 4/5 Days Writing Practice in a week through portal

From: 31st May 2026

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THE PROGRAM AT GLANCE		
Classes	**Tests**	**Resource Support**
• Revision cum Value Addition (RCVA) Classes: 07 • Current Affairs Classes: 05 • ED Classes: 04 • Essay Classes: 05	• Total FLT: 13 (with 5 Mock Tests) • Daily Answer Writing Practice: 40 • Total Feedback Session with Faculty: 08	• Essay Booklet • GS Sectional Short Notes (Soft/Hard Copy) • Ethics Facts and Examples Booklet • Current Affairs (One Year ED Compilation) Booklet (Soft/Hard Copy)

Prachi Singhal
AIR 370 | CSE 2025

A Student of
MGP, Essay & Ethics Test Series

"At Lukmaan IAS, I had complete trust in Everything that was taught and shared here.

Ansari Sir makes learning both enjoyable and precise, and he supports his students with genuine care and dedication."

COMPILATION EXPLAINER PIB OCTOBER 2025

1. BUILDING A VIKSIT BHARAT WITH 6G: FROM 4G SELF-RELIANCE TO 6G GLOBAL LEADERSHIP

Introduction: India's digital transformation is entering a decisive new phase with the launch of **6G initiatives** that promise to redefine connectivity, productivity, and global competitiveness. Government of India's **Bharat 6G Vision** seeks to position the nation as a **global telecom innovation hub** by 2030.

What is 6G?

6G or **Sixth-Generation wireless technology** represents the next leap in digital communication, offering internet speeds up to **1,000 times faster than 5G**, with latency as low as **one microsecond**. This enables **real-time interactivity** crucial for autonomous vehicles, smart robotics, telemedicine, and immersive extended reality (XR).

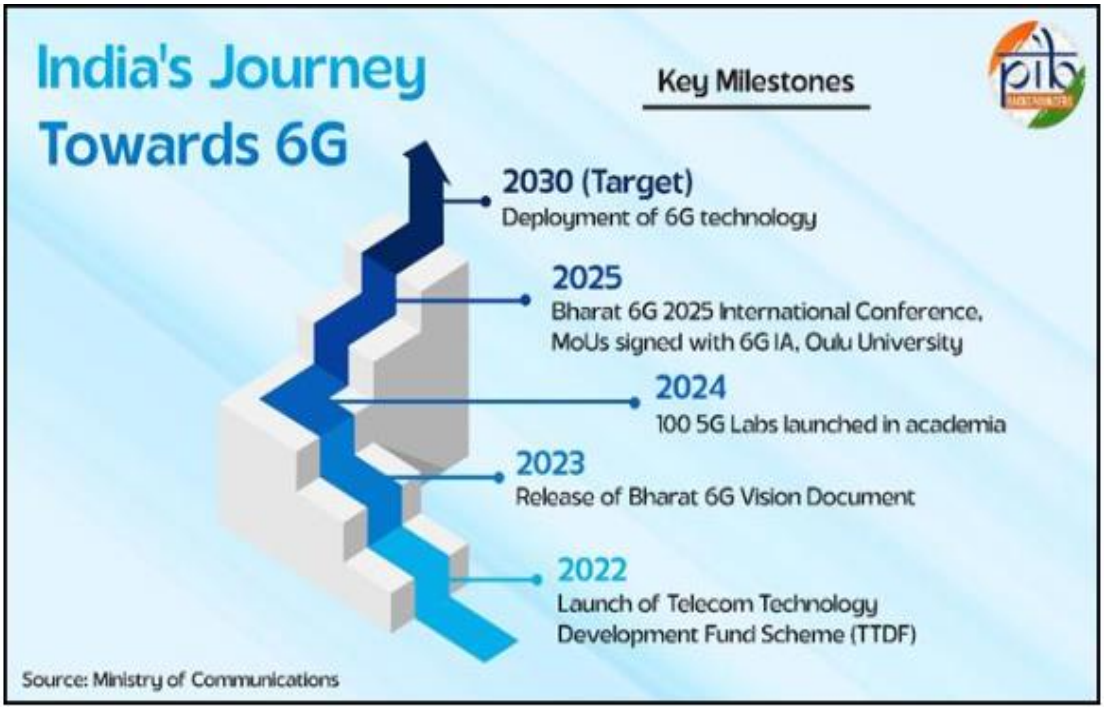
- 6G combines **AI-driven automation**, **quantum communication**, and **edge computing** to create a self-optimizing network ecosystem.
- It promises **ubiquitous connectivity** i.e. linking people, devices, and machines in ways never before possible.

India's 6G Vision:

The **Bharat 6G Vision Document**, released on **March 22, 2023**, articulates India's ambition to lead the world in 6G design, development, and deployment. It envisions a **"Digital First Nation"** built on three foundational principles:

1. **Affordability:** Ensuring cost-effective 6G access across rural and urban India.
2. **Sustainability:** Building energy-efficient, green communication networks.
3. **Ubiquity:** Achieving universal, high-quality connectivity across the nation.

Under this vision, India aims to secure **10% of global 6G patents** and generate an estimated **USD 1.2 trillion contribution to GDP by 2035** through digital connectivity and allied industries.



India Mobile Congress 2025:

The **International 6G Symposium 2025**, held during the **India Mobile Congress**, marked a defining milestone in India's telecom evolution.

Key outcomes included:

- Launch of **Joint Declaration on 6G Principles**.
- Signing of **MoUs with NASSCOM and the European Space Agency (ESA)** for collaborative R&D.
- Release of four **Bharat 6G Whitepapers** on:
    i. Spectrum Roadmap for India
    ii. AI and Network Evolution
    iii. 6G Architecture, Security, and RF Sensing Framework
    iv. Powering Next-Gen Telecom

These initiatives reinforced India's leadership role in shaping **global 6G discourse**. Through the Bharat 6G Alliance, India has emerged as a proactive voice in **international telecom standardization**.

Government Initiatives for a Future-Ready 6G Telecom Ecosystem

1. Bharat 6G Alliance (B6GA)

The **Bharat 6G Alliance** is the central collaborative platform uniting industry leaders, startups, academia, and research institutions. It focuses on developing **indigenous 6G technologies** while facilitating global partnerships for standards and innovation.

- Comprises **80+ member organizations**, including **30+ startups**.
- Formed **seven working groups** on Spectrum, Applications, Green & Sustainability, and Security.
- Signed MoUs with global 6G alliances including **NextG Alliance (USA)**, **6G IA (Europe)**, **6G Flagship (Finland)**, **6G Forum (South Korea)**, and **XGMF (Japan)**.
- Supported by **TSDSI** and **NASSCOM**, ensuring synergy between telecom manufacturing, research, and software ecosystems.

2. Telecom Technology Development Fund (TTDF)

Launched in **October 2022**, TTDF promotes indigenous **R&D in 5G and 6G technologies**, especially for rural and remote regions.

- ₹310.6 crore sanctioned for **115 projects** across startups, MSMEs, and research institutions.
- Supports **technology design, commercialization, and broadband affordability**.
- Encourages academia–industry collaboration for **open RAN, optical networks, and AI-enabled spectrum efficiency**.
- This initiative bridges the innovation gap between **research and deployment**, nurturing India's deep-tech ecosystem.

3. Testbeds and Academic Innovation

- **6G Terahertz (THz) Testbed** and **Advanced Optical Communication Testbed** established for experimental R&D.
- **100 5G Labs** across academic institutions functioning as **6G-ready innovation centres**, providing startups and students access to real test environments.
- Over **104 research proposals** approved for 6G network ecosystems, aligned with the **global roadmap for 6G**.
- A **Technology Innovation Hub at IIIT Bangalore** under **NM-ICPS** focuses on **Reconfigurable Intelligent Surfaces, O-RAN Massive MIMO**, and **Advanced Communication Systems**.

Challenges before 6G implementation:

While India's 6G roadmap is ambitious, several **structural and operational challenges** persist, as noted by ORF & The Hindu. Which are as follows-

1. As noted in *The Hindu that* spectrum allocation for 6G frequencies (especially THz bands) requires coordinated international policy. Without early standardisation, India risks fragmentation in the adoption of new technologies.
2. According to *ORF*, indigenous R&D requires sustained investment and retention of skilled researchers. India's current telecom R&D spend (0.7% of GDP) remains lower than OECD averages.
3. The *Indian Express* highlights that 6G's AI-driven architecture could amplify vulnerabilities, especially in quantum communications, data privacy, and cross-border data flows.
4. ORF analysis warns that achieving 10% of global 6G patents will require major reform in India's IP enforcement and incentive frameworks for startups and researchers.
5. 6G's energy requirements could challenge India's climate commitments unless powered by renewable energy and efficient cooling systems.

However, 6G represents a paradigm shift, integrating Artificial Intelligence (AI), cloud computing, and satellite networks to deliver ultra-reliable, intelligent, and energy-efficient communication systems.

CONCLUSION: As India transitions from a **technology consumer to a technology creator**, its 6G strategy encapsulates the spirit of *Atmanirbharta* and *Digital Sovereignty*.

2. CURBING CYBER FRAUDS IN DIGITAL INDIA

*"I dream of a Digital India where **cyber security** becomes an integral part of our **national security**"* - **Prime Minister Narendra Modi**

Introduction

India's cyberspace is busier than ever, carrying **crores of transactions** and interactions daily. With over **86% of households** now connected to the internet, the expanding digital landscape has enabled citizens to access digital services at their fingertips. Simultaneously, it has **widened the attack surface** for cyber frauds, making **cybersecurity a national priority**.

The surge in cybersecurity incidents from **10.29 lakh in 2022** to **22.68 lakh in 2024** reflects the growing scale and complexity of digital threats. The financial toll is pronounced, with cyber frauds amounting to **₹36.45 lakh** reported on the **NCRP** (National Cyber Crime Reporting Portal) as of **28 February 2025**.

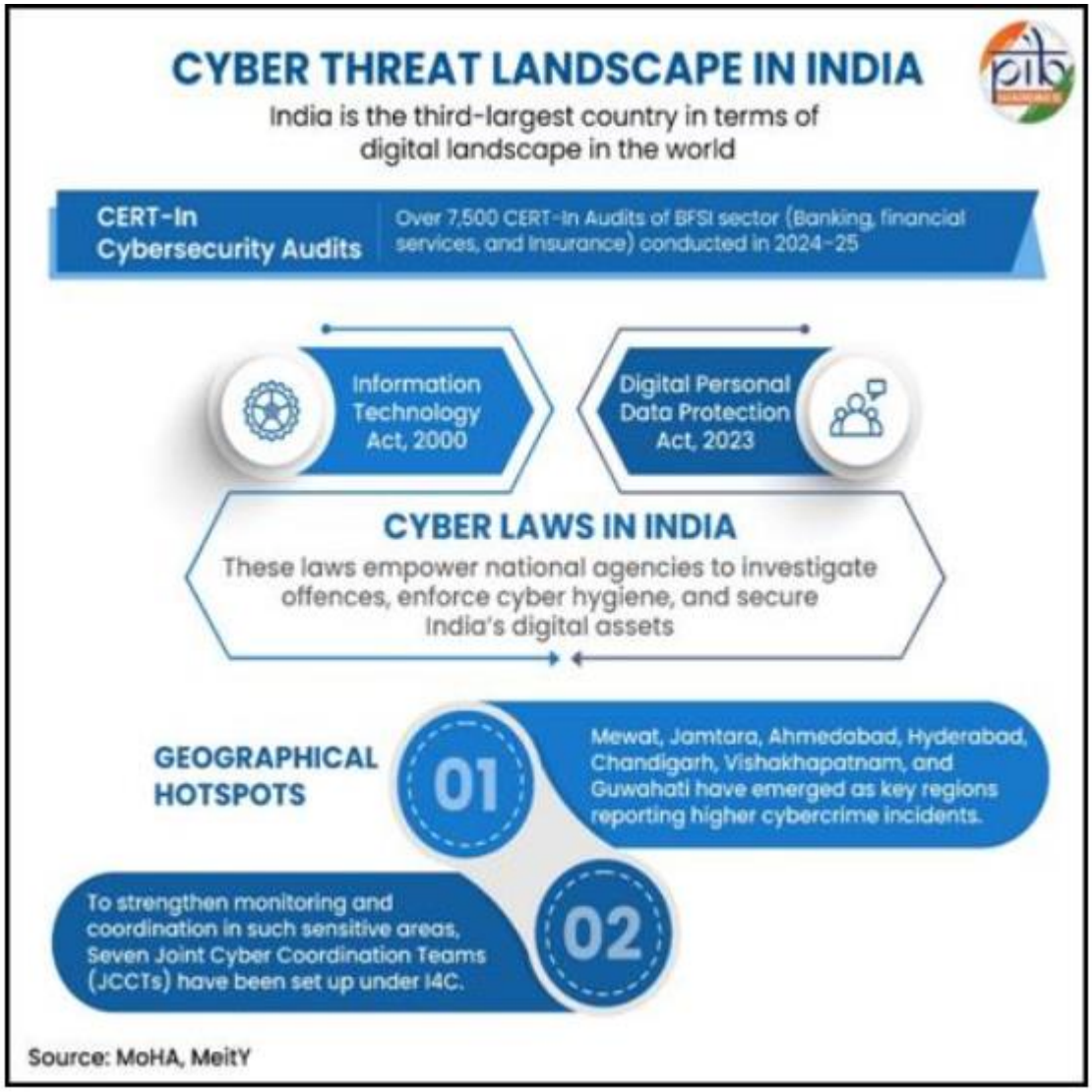
Key Takeaways

- **Budgetary Allocation: Union Budget 2025** allocated **₹782 crore** for cybersecurity projects.
- **Enforcement Action:** Over **9.42 lakh SIM cards** and **2,63,348 IMEIs** linked to fraudulent activities have been blocked.
- **Incident Response:** A dedicated cybercrime helpline number **1930** provides **immediate assistance** to victims of online financial frauds.
- **Gaming Ban:** The **Promotion and Regulation of Online Gaming Bill, 2025** (passed **21st August 2025**) imposes a **complete ban on online money gaming**.
- **Skill Development:** Over **1,05,796 police officers** are registered on the **CyTrain portal**, with **82,704 certificates** issued for cybercrime investigation.

Tracing Cyber Fraud Patterns

The evolving landscape shows that frauds are diverse, adapting to **new technologies** and user behavior, often linked to **organized crime** and **fraud factories in Southeast Asia**.

- **Emerging AI Threats:** Techniques like **spoofing**, **deepfakes leveraging AI**, and **phishing** are on the rise, amplifying the impact of scams.
- **Targeting UPI:** India's preferred payment mode, **UPI**, is targeted using compromised mobile numbers. The **Department of Telecommunications (DoT)** launched the **Financial Fraud Risk Indicator (FRI)** to classify suspicious numbers as Medium, High, or Very High-risk.
- **Illicit Ventures: Online betting apps** have generated **over ₹400 crores** in criminal proceeds. This is now addressed by the **Promotion and Regulation of Online Gaming Bill, 2025**, which encourages **e-sports and social online games** while imposing a ban on money gaming.



India's Cybersecurity Framework

The Government has implemented strong defense mechanisms underpinned by key legislation and specialized institutions.

A. Cyber Laws Securing Cyber Space

- **Information Technology Act, 2000:** The **bedrock of India's cyber law**. It addresses offenses like **identity theft, impersonation, and cheating** by personation through computer resources.
- **Digital Personal Data Protection Act, 2023:** Requires that all personal data be handled **lawfully** and with **user consent**, placing **strict obligations** on data fiduciaries.
- **IT Rules, 2021:** Ensures **accountability of social media intermediaries** and mandates the **removal of unlawful content**.

B. Institutional Capacity and Resilience

- **CERT-In (Indian Computer Emergency Response Team):** The **national agency for responding** to cybersecurity incidents. It facilitates **109 cybersecurity mock drills**, engaging **1,438 organizations** to assess cyber readiness.
- **NCIIPC (National Critical Information Infrastructure Protection Centre):** The national nodal agency for the **protection of critical information infrastructure** in vital sectors (banking, telecom, power, and transportation).

- **I4C (Indian Cybercrime Coordination Centre):** Established under the **Ministry of Home Affairs**. It facilitates real-time information sharing and coordinated investigations, proactively blocking **3,962 Skype IDs** and **83,668 WhatsApp accounts** linked to cyber frauds.

Cybersecurity Initiatives

The following initiatives demonstrate the use of technology and coordination to mitigate and investigate frauds effectively:

- **CFCFRMS (Citizen Financial Cyber Fraud Reporting and Management System):**
  - Enables financial institutions to save funds.
  - Saved **more than ₹5,489 crore** in over **17.82 lakh complaints**.
- **Samanvaya Platform:**
  - Strengthens investigations using **analytics-based interstate linkages** of criminals and crimes.
  - Its **'Pratibimb'** module maps crime infrastructure, leading to **12,987 accused arrests**.
- **CCPWC Scheme (Cyber Crime Prevention Against Women and Children):**
  - Financial support of **₹132.93 crore** established cyber forensic labs across **33 States/UTs**.
  - Trained over **24,600 personnel** in investigation and digital forensics.
- **National Cyber Crime Reporting Portal (NCRP) & 1930:**
  - Portal (www.cybercrime.gov.in) enables citizens to report crimes, with a focus on offenses targeting women and children.
  - Helpline **1930** provides **immediate assistance** to victims of financial frauds.

Way forward

The government is investing in future resilience and public awareness:

- **NM-ICPS (National Mission on Interdisciplinary Cyber-Physical Systems)** plays a pivotal role in combating frauds by promoting **advanced research and innovation** in **AI** and cybersecurity tools for threat detection.
- **Cyber Crisis Management Plan (CCMP) i**nitiated for all government bodies to strengthen preparedness against cyber-attacks, with **205 workshops** conducted to build capacity.
- Multi-platform outreach through **radio, newspapers, metro announcements**, and a **Handbook for Adolescents and Students**.
- The **9th India Mobile Congress (IMC 2025)**, themed **"Innovate to Transform,"** will feature a **Cybersecurity Summit**, focusing on **6G, AI, and IoT** alongside **1.2 billion mobile subscribers** and **970 million internet users**.

3. DEENDAYAL ANTYODAYA YOJANA – NATIONAL RURAL LIVELIHOODS MISSION (DAY-NRLM)

A Blueprint for Empowering Rural Communities

Introduction: Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM), launched by the Ministry of Rural Development.

- **Launched in 2010** by restructuring the *Swarnajayanti Grameen Swarozgar Yojana (SGSY)* & **renamed in 2016** as *Deendayal Antyodaya Yojana – NRLM*.
- It aims to reduce poverty by enabling gainful self- and wage-employment opportunities through *social mobilization, financial inclusion, skill development, and livelihood diversification*.

- The Mission has emerged as one of the **world's largest poverty alleviation and women empowerment initiatives**.
- The central and state governments **jointly fund this centrally sponsored scheme**.

Objectives of DAY-NRLM: It focuses on four pillars:

a. **Social Mobilisation and Institution Building**
b. **Financial Inclusion**
c. **Sustainable Livelihoods**
d. **Social Development and Convergence**

The Mission is also working on empowering the SHG women through **awareness generation** and **behaviour change communication** on issues like domestic violence, women's education and other gender-related concerns, nutrition, sanitation, health, etc. The SHGs created under this scheme aim to facilitate:

a. **Access to formal credit.**
b. **Support for diversification and strengthening of livelihoods.**
c. **Access to entitlements and public services.**

Key Takeaways

- **10.05 crore rural households** mobilised into **90.9 lakh Self Help Groups (SHGs)**.
- **4.6 crore Mahila Kisans** and **3.74 lakh enterprises** supported through entrepreneurship programs.
- **17.5 lakh rural youth trained**, with **11.48 lakh placed** under *DDU-GKY*.
- **47,952 Bank Sakhis** deployed to boost financial inclusion in rural India.
- Over **₹11 lakh crore** disbursed as credit to SHGs with a **98% repayment rate**.
- Promotes sustainable livelihoods in **agriculture, livestock, NTFP, and non-farm sectors**.

Empowering Rural Women: Through community-led institutions, mission enables them to access credit, diversify livelihoods, and achieve financial independence. Some facts speak for themselves-

- **₹11 lakh crore** credit disbursed to SHGs via formal institutions.
- **98% repayment rate** highlights SHG discipline and sustainability.
- Women-led intermediaries strengthen last-mile delivery:
  - **Krishi Sakhis** – Provide agricultural extension services.
  - **Pashu Sakhis** – Deliver livestock and veterinary support.
  - **Bank Sakhis** – Facilitate SHG credit access and transactions via 47,952 bank sakhis.
- **4.62 crore Mahila Kisans** supported under *Agro-Ecological Practices*.
- **Start-up Village Entrepreneurship Programme (SVEP)** aided **3.74 lakh micro-enterprises** in food processing, crafts, and rural services.

Success Stories

Stories like **Heinidamanki Kanai** from Meghalaya who turned a modest soap-making idea into a thriving enterprise, reflect the transformational spirit of NRLM. Supported by her SHG and access to ₹1.8 lakh bank credit, she became a local entrepreneur and mentor, inspiring other rural women to start businesses.

High-Performing States

- **Bihar, Uttar Pradesh, and Andhra Pradesh** lead in SHG formation and women mobilisation.
- **Uttar Pradesh & Bihar:** Highest capitalization support — ₹1.23 lakh and ₹1.05 lakh respectively.

- **Andhra Pradesh:** Leads with **₹34,837 crore** in SHG bank loans.
- **Maharashtra:** Top in farm-based *Agro-Ecological Practices* (12.9 lakh Mahila Kisans).
- **Assam:** Highest in *non-farm micro-enterprises* (9,557 supported).

Skill Development & Employment Initiatives

1. Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)

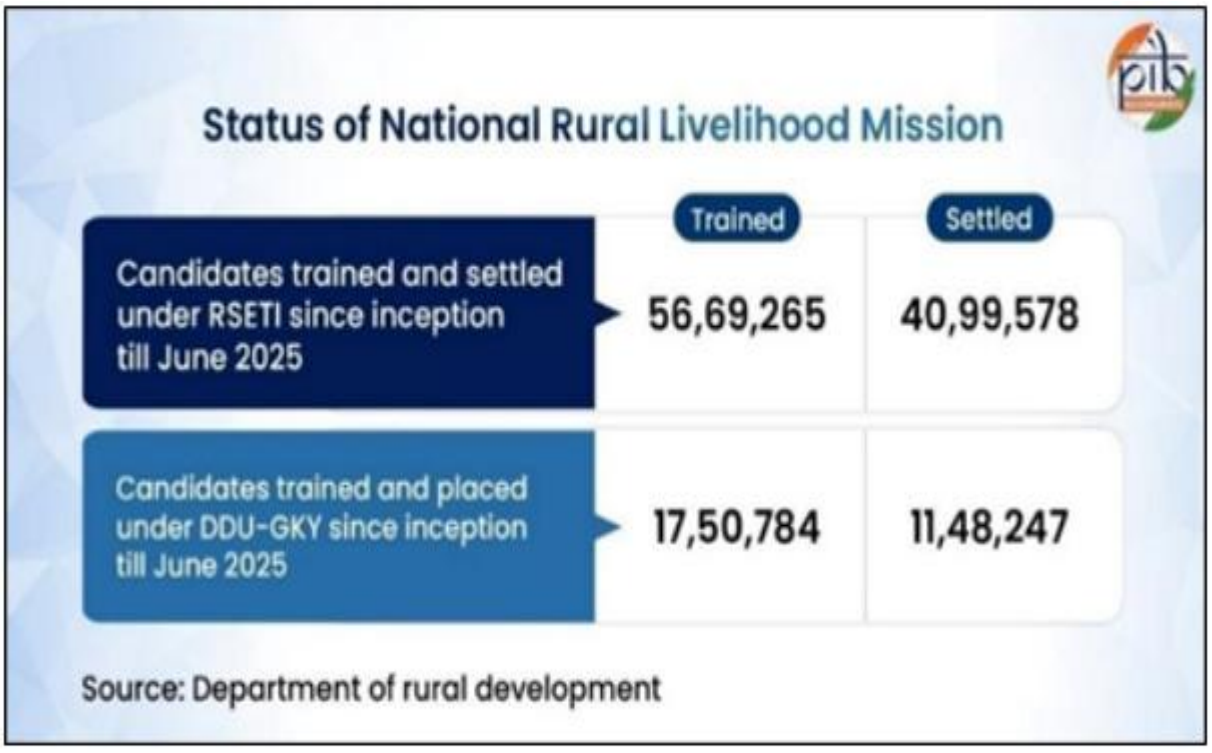
- Placement-linked skill training for youth (15–35 years).
- **17.5 lakh trained**, **11.48 lakh placed** (as of June 2025).
- Top training states: **Uttar Pradesh (2.44 lakh)**, **Odisha (2.15 lakh)**, **Andhra Pradesh (1.33 lakh)**.
- Top placement states: **Odisha (1.77 lakh)**, **Andhra Pradesh (1.17 lakh)**.

2. Rural Self Employment Training Institutes (RSETIs)

- Bank-led entrepreneurship training for youth (18–50 years).
- **56.69 lakh trained**, **40.99 lakh settled** since inception.
- Leading states:
    - **Uttar Pradesh:** 7.55 lakh trained; 5.54 lakh settled.
    - **Rajasthan, MP, Karnataka:** Over 4 lakh trained and 3 lakh settled each.

Steps taken by the Government to impart advanced training and marketing skills to SHG members, particularly women are:

- **SARAS Aajeevika Melas** (National & State-level) promote marketing and branding of SHG products.
- **National Institute of Rural Development and Panchayati Raj (NIRD&PR)** conducts **Training of Trainers** on marketing skills to build the capacity of SHG members and rural entrepreneurs supported under DAY-NRLM.



CONCLUSION: DAY-NRLM, by combining financial empowerment, skills, and social capital has redefined rural livelihoods into engines of resilience and entrepreneurship.

Mode : Offline/Online

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...Celebrating 14 years of its establishment

Public Admin. Crash Course

For Mains 2026 | By S Ansari

Total 20 Classes

From: 06th June 2026

Class Time 2:30 PM to 5:00 PM

KEY FOCUS AREAS

- ✓ Revision cum value addition
- ✓ Contemporary & current developments
- ✓ Discussion on selected PYQs

The highlights:

- Relevant PYQs as per the expected trends and recurring nature of pattern of PYQs will be discussed
- New facts and examples will be told/or given through handouts

Note:

- All topics cannot be written, they largely crop up while teaching
- We also deliberately don't want to list each and every topic but we will teach or give handouts of all relevant topics

Scan to Register or Class Schedule

The Past Results from Public Admin. Crash Course

291 Marks

AIR 11

YASHASWI RAJ VARDHAN
CSE 2025

302 Marks

AIR 11

NUPUR GOEL
CSE 2019

334 Marks

AIR 05

ABHILASH MISHRA
CSE 2016

4. FROM CEMENT TO HANDLOOM: GST SPARKS INCLUSIVE GROWTH IN CHHATTISGARH

"Inclusive growth is not only about industrial development, but also about empowering artisans, women, and rural communities" – Government of India

Introduction

Recent **GST reforms** lowering rates across handlooms, handicrafts, dairy, and cement are giving a **boost to economic activity, employment, and inclusive development**, aligning with the state's vision of **sustainable growth and rural empowerment**.

- Chhattisgarh, formed in **2000** from Madhya Pradesh, is India's **9th largest state** with over **25 million residents**. Chhattisgarh is known for its **tribal heritage, forest resources, and industrial strength,** which combines modern industry with rich artisanal traditions i.e. from **Bastar's Dhokra metal craft** to **Kosa and Tussar silk weaving**.

Key Takeaways

- GST reduction to **18%** lowers construction costs, drives housing demand, and sustains **20,000–30,000 jobs**.
- GST cut to **5%** increases demand by **10–15%**, potentially creating **5,000 new jobs by 2026** and empowering women-led SHGs.
- Lower tax rates enhance competitiveness, formalization, and market access for **1.5 lakh weavers**, many of whom are women.
- GST reduction from **12% to 5%** stimulates demand, supports **15,000–20,000 jobs**, and expands NDDB processing capacity **6x by 2028**.

Sectoral Impact of GST

1. Cement Industry

- Concentrated in **Korba, Raigarh, Bilaspur, Raipur, Naya Raipur.**
- Provides **~20,000–30,000 direct and indirect jobs**, including engineers, technicians, contract workers, and transporters.
- **GST reduction (28% to 18%)** reduces construction costs, fuels housing demand, and drives **5–10% annual employment growth** in infrastructure.

2. Handloom & Powerloom Sector

- Districts such as **Raigarh, Janjgir-Champa, Bastar** employ nearly **1.5 lakh weavers**, majority women.
- Clusters in **Raigarh, Bilaspur, Janjgir-Champa** supported by MSMEs; semi-skilled rural workforce, including migrants.
- **GST cut to 5%** improves affordability, market competitiveness, and export potential.

3. Handicrafts & Traditional Arts

- Bastar, Kondagaon, Jagdalpur. **50,000–60,000 artisans**, mostly STs, generate **₹500–800 crore annually**; **GST cut from 12–18% → 5%** boosts demand and supports 5,000 new jobs.
- **Metal & Bell Metal Crafts-** ~15,000–30,000 artisans in Dhokra, wrought iron, and bell metal crafts; **ODOP promotion** enhances market linkages. GST reduction lowers costs, strengthens exports, and preserves traditional skills.

4. Packaged Dairy Products

- 1,068, many **women-led**; **15,000–20,000 organized jobs** supported.
- NDDB plans **79,000 kg/day → 5 lakh kg/day by 2028**, potentially creating 2,000–5,000 new jobs.
- **GST cut (12% to 5%)** increases consumption, strengthens cold chains, and supports women's income in rural communities.

GST as a Driver of Inclusive Growth

- Reduces production costs and improves competitiveness for industrial and artisanal sectors.
- Empowers **women-led rural enterprises** and sustains **thousands of artisan livelihoods**.
- Encourages **formalization** and integration into national and global markets.
- Preserves **tribal and traditional craftsmanship**, while stimulating employment in both **industrial and cottage sectors**.

Way Forward

- Continued focus on **GST-driven reforms** for emerging sectors to sustain **employment and exports**.
- Promotion of **women entrepreneurship, SHGs, and tribal craft clusters** through targeted support schemes.
- Strengthening **market linkages and skill development** under state and central programs like **PMEGP, NHDP, CHCDS, ODOP**, and **PM Vishwakarma Yojana**.
- Leveraging **digital marketplaces and e-commerce** for rural and tribal artisans to expand global outreach.

CONCLUSION

By strengthening livelihoods, preserving traditional skills, and fostering new business opportunities, GST reforms are driving inclusive growth and positioning Chhattisgarh for sustainable socio-economic development.

5. EXPORT SURGE: INDIA STEPS UP ON GLOBAL STAGE

Introduction:

The journey of Indian exports is a result of **innovation with global integration**. The export sector, diversified from textiles and spices to **technology, pharmaceuticals, and engineering goods**, is now growing at **7.1% (2024)**, significantly **outpacing global growth (2.5%)**. Exports' share in India's **GDP** has climbed to **21.2% in 2024**. India's trade performance continued its growth trend in the first five months of FY 2025–26, driven by government reforms, digital transformation, and an entrepreneurial spirit.

Key Takeaways

- **Overall Growth:** Exports surged by **5.19%** to **USD 346.10 billion** in April-August 2025 vs. the same period in 2024.
- **Segment Performance: Merchandise export** rose by **2.31%**, and **service export** surged by **8.65%**.
- **Core Manufacturing Strength: Non-petroleum and non-gems & jewellery exports** grew strongly by **7.76%** to **USD 146.70 billion**.
- **Export Target: 34.61%** of the **USD 1 trillion** target for FY 2025-26 has been achieved in the first five months.
- **Top Performer: Electronic goods** exports led the growth momentum with a **40.63%** rise.

Growth Trajectory

Total export value for April–August 2025 reached **USD 346.10 billion**. This growth is increasingly driven by the high-value services sector and advanced manufacturing.

Export Segment	Value (Apr–Aug 2025)	Share	Growth Rate (YoY)
Total Exports	**USD 346.10 Billion**	**100%**	**5.19%**
Merchandise Exports	**53.09%**	**2.31%**	
Service Exports	**46.91%**	**8.65%**	
August 2025 Growth	N/A	N/A	**4.77%**

Key Drivers Behind Merchandise Export Growth

Merchandise exports, totaling **USD 183.74 billion** in the first five months, show a strong thrust in technology and high-demand agricultural products.

Top Performing Commodities (April-August 2025)

Commodity/Sector	Growth Rate (YoY)	Key Initiative & Impact
Electronic Goods	**40.63%**	Production increased **6x** and export **8x** in 10 years, driven by **Make in India** and **PLI schemes**. **Smartphone exports** crossed **₹1 lakh crore** in five months.
Other Cereals	**21.95%**	Rise due to global demand for **nutritious and health-conscious food** (Rye, Barley, Oats, etc.).
Meat, Dairy & Poultry	**20.29%**	Supported by the **Agriculture Export Policy** and **APEDA** for market development.
Tea	**18.20%**	India surpassed Sri Lanka to become the **world's second-largest exporter** in 2024.
Drugs & Pharmaceuticals	**7.30%**	Sustained demand for **affordable generics** and quality products, growing to **USD 12.76 billion**.
Engineering Goods	**5.86%**	Supported by schemes like **Zero Duty Export Promotion Capital Goods (EPCG)** and **Market Access Initiative (MAI)**.

New Engine of Growth

The services sector continues to demonstrate resilience and is a vital contributor to foreign exchange earnings.

- **Trade Surplus:** The services sector generated a **trade surplus of USD 79.97 Billion** in April-August 2025, contributing significantly to lowering the overall trade deficit.
- **Key Growth Factors:**
    - **Technology Sector:** Projected to contribute nearly **one-fifth of the economy by 2030**, driven by **cloud computing, AI, and FinTech**.

- **Demographic Dividend:** India's large youth population (**65% under 35**) provides a competitive advantage and a skilled workforce (e.g., **Skill India Program**).
- **FDI Liberalisation:** Enhancing sectoral caps (e.g., insurance from 74% to 100%) to attract capital.

India's Strategic Trade Ties & Policy Reforms

India's trade ties are strengthening, with **Hong Kong, China, USA, Germany, and Korea** showing significant merchandise export growth (April-August 2025). The government's initiatives are focusing on **logistics, digital tools, and tax reforms**.

Initiative/Reform	Key Impact & Achievements
Logistics & Infrastructure	Global logistics rank rose from **44 (2018) to 38 (2023)** due to **PM GatiShakti** and **National Logistics Policy**. **PLI scheme** generated **₹16.5 lakh crore** in output.
GST Reforms	**Removes value-based threshold** for GST refund on exports (supporting small exporters). **GST cuts** on **trucks/delivery vans** (28% to **18%**) and **packaging materials** (**12-18% to 5%**) to reduce logistics costs.
Digital Simplification	**National Single Window System** simplifies approvals. **ICEGATE** streamlines e-filing and e-payments at Customs.
Trade Policy	**Foreign Trade Policy 2023** and **RoDTEP scheme** (reimbursed nearly **₹58,000 crore**) are boosting competitiveness.
Trade Agreements	Focus on key pacts like **India-UK CETA** and **India-EU FTA** to expand market access for services and goods.
MSME Focus	**Export Promotion Mission** (a **₹2,250 crore** initiative) addresses challenges related to export credit and non-tariff barriers, supporting **MSMEs**.

New Moves to Take India Global- Next-Generation GST Reforms

- **90% provisional refund for zero-rated supplies** based on system-driven risk checks from November 1, 2025.
- **Removes value-based threshold limit for GST refund on exports**. This will support small exporters as they can claim refunds on their small value consignments too.
- **GST cuts on paper packaging**, textiles, leather, and wood from 12–18% to 5% resulting in **lower production costs**, enabling exporters to offer more competitive prices. **GST on trucks and delivery vans, reduced** from 28% to 18%, and lower GST on packaging materials reducing freight and logistics costs, enhancing competitiveness. Besides, GST on toys and sports goods have been cut from 12% to 5%, **incentivising domestic production**, countering cheap imports, and tapping rising global demand.
- The place of supply for **"intermediary services"** will be determined as per the location of the recipient of such services, to help Indian exporters of such services claim export benefits.
- **Correction of inverted duty structures** in textiles and food processing eases working capital pressure, reduces refund dependency and encourages domestic manufacturing.
- **90% provisional refunds** for inverted duty structure (IDS) claims on a risk-based basis.
- The Export Promotion Mission, announced in the Union Budget 2025-26, is being coordinated by the Department of Commerce along with the Ministry of MSME and Ministry of Finance. Under the mission, **₹2,250 crore** initiative has been proposed with the intent to address challenges related to export credit accessibility, factoring for cross-border trade, and overcoming non-tariff barriers, with a particular focus on supporting MSMEs.

New Trade Agreements

Trade agreements are agreements between the country(s) or regional blocks to reduce or eliminate trade barriers, though mutual negotiations with a view to enhancing trade. Some of the new trade agreements which are being discussed or are released are:

- India-UK Comprehensive Economic and Trade Agreement (CETA)
- India-EU Free Trade Agreement
- India-Australia Comprehensive Economic Cooperation Agreement
- India-New Zealand Free Trade Agreement
- India and Oman Comprehensive Economic Partnership Agreement (CEPA)
- India- Peru Free Trade Agreement (FTA)
- India- Chile Comprehensive Economic Partnership Agreement (CEPA)
- India- UAE Comprehensive Economic Partnership Agreement (CEPA)

CONCLUSION: This acceleration in exports, driven by both traditional sectors and high-growth areas like **electronics and services**, is poised to further enhance **economic development and employment**, reinforcing India's global position.

6. SOARING SKIES, THRIVING ECONOMY: INDIA'S AVIATION VISION 2047

Connecting India, Empowering Growth

Introduction:

As UDAN completes nine years, India's skies have grown busier than ever, marking the nation's rise as the **world's third-largest domestic aviation market**. The **Aviation Vision 2047** charts a transformative roadmap to expand connectivity, generate employment, and strengthen India's position as a global aviation hub.

Key Takeaways

- **UDAN revolutionised regional connectivity:** 1.56 crore passengers, 3.23 lakh flights operated.
- **Airport expansion:** From 74 in 2014 → 163 in 2025 → target of **350–400 airports by 2047**.
- **Employment impact:** Aviation supports **7.7 million jobs** (direct + indirect).
- **Digital and green innovations:** Digi Yatra, Greenfield Airports Policy, and Drone PLI Scheme enhancing sustainability and ease of travel.

India's Aviation Growth

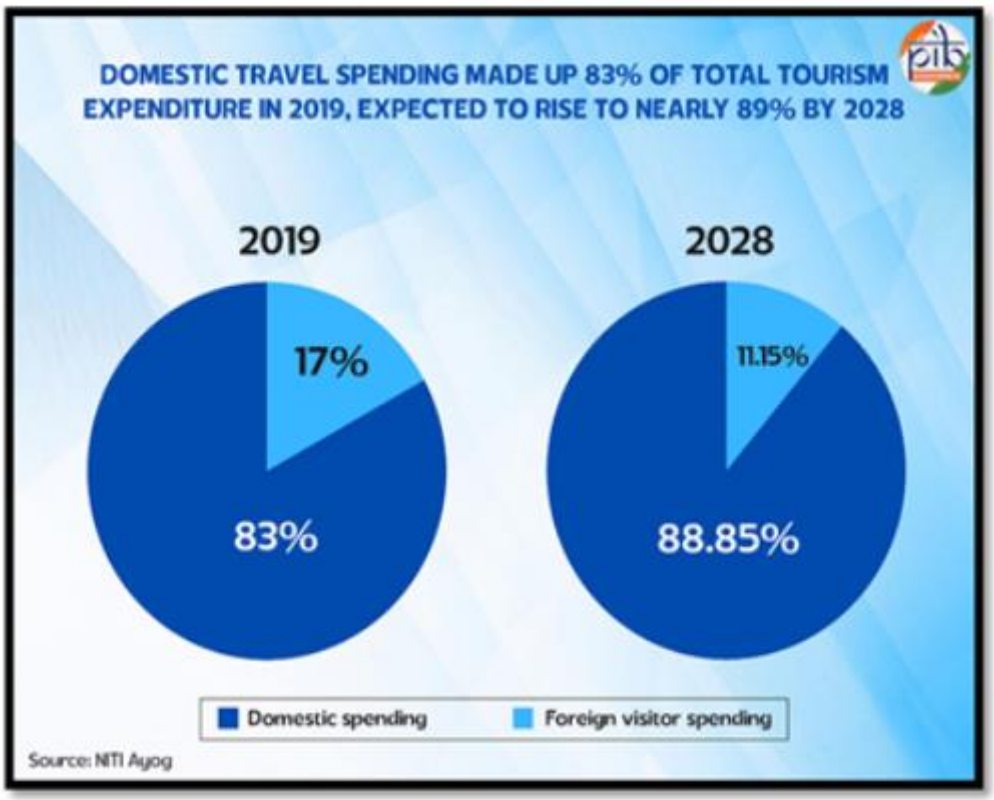
- India's aviation sector has become a **key driver of economic growth**, contributing through transport, tourism, logistics, and manufacturing.
- The **International Civil Aviation Organization (ICAO)** estimates that every ₹1 invested in aviation generates **₹3 in economic activity** and supports **6x employment** in related industries.
- Passenger traffic grew 10–12% annually in the past decade and is projected to **reach 1.1 billion by 2040**.
- The **commercial airline fleet** is expected to expand from **400 (2014) → 2,359 (2040)**.
- By 2040, total employment in the aviation ecosystem could reach **25 million**, making it a cornerstone of Viksit Bharat @2047.

UDAN Achievements: The Ude Desh ka Aam Nagrik (UDAN) scheme has transformed India's regional connectivity by making air travel affordable and inclusive.

- **Operational Achievements:**
    - 649 routes operationalised; 93 aerodromes connected (including 2 water aerodromes & 15 heliports).

- Over **1.56 crore passengers** travelled and **3.23 lakh flights** operated.
- ₹4,300 crore disbursed as Viability Gap Funding (VGF) to sustain regional routes.

- **Regional Expansion:**
  - Integration of **Andaman & Nicobar, Lakshadweep**, and **Northeastern states** into the aviation grid.
  - Target: **120 new destinations** and **4 crore passengers** in the next decade.
- **Inclusivity Initiative – UDAN Yatri Café:**
  - Offers affordable meals (₹10 tea, ₹20 samosa) at select airports to enhance accessibility and comfort for all travellers.



Aviation Vision 2047: With 25 million jobs projected by 2047 and expanding opportunities in MRO, drone manufacturing, and pilot training, aviation will become a vital pillar of India's $10 trillion economy.

The following initiatives in the aviation sector are pivotal in achieving India's 2047 vision-

1. Krishi UDAN

- Launched in 2020 to transport perishables efficiently, with **50% freight subsidy** and Operation Greens convergence.
- Benefits farmers in tribal, hilly, and northeastern regions.

2. Lifeline UDAN

- Launched during COVID-19 lockdown (2020) to transport **1,000 tons of medical cargo** via **588 flights** across **5.45 lakh km**.

3. Greenfield Airports Policy

- Framework for **PPP-based airport development** on new sites, reducing congestion in metro hubs.

4. Digi Yatra

- Launched in 2022; enables paperless, contactless passenger processing through **facial recognition**.
- Used by **52.2 million passengers** (March 2025); over **12.1 million app downloads**.

5. Flight Training & Pilot Development

- Expanding Flight Training Organisations (FTOs) to meet projected **30,000–34,000 pilot demand**.
- Gender inclusion push: **13–18% women pilots** currently; **25% target by 2025** across aviation roles.

6. Drone Rules 2021 & PLI Scheme

- Liberalised regulatory framework to boost **domestic drone manufacturing**.
- ₹34.79 crore PLI disbursed (FY 2024–25), enhancing Atmanirbhar Bharat in drone technology.

7. Bharatiya Vayuyan Adhiniyam, 2024

- Modernises the **Aircraft Act (1934)** for global compliance and indigenous manufacturing.
- Streamlines licensing, fosters Make in India, and aligns with ICAO and Chicago Convention standards.

CONCLUSION: Aviation Vision 2047 charts the skies for a $10 trillion economy. India's civil aviation is set to become a defining pillar of Viksit Bharat.

7. INDIA'S EXPANDING GREEN FOOTPRINT

From Afforestation to Climate Leadership

Introduction: According to the **FAO's Global Forest Resources Assessment (GFRA) 2025**, India now ranks **9th worldwide in total forest area** and maintains its **3rd position in net annual forest area gain**.

- The country has also secured the **5th position among the top global carbon sinks.** This achievement underscores India's unwavering commitment to the vision of *Lifestyle for Environment (LiFE)* and sustainable growth under *Viksit Bharat @2047*.
- India has also maintained its **3rd position globally** in the **annual net gain of forest area.**

Global Forest Resources Assessment (GFRA):

The Global Forest Resources Assessment is the only worldwide assessment based on official national data. FRA identifies two broad categories of forest:-

i. **Naturally regenerating**
ii. **Planted**.

Within these broad categories, it identifies **primary forests** – those with only native species – as a subcategory of naturally regenerating forests. Under the subcategories of planted forests, it identifies **plantation forests** (for example, rubber) and **other planted forests** (forests that are planted but do not satisfy the criteria of a plantation).

India in the Global Forest Context (GFRA 2025):

- Global forest cover equal to **4.14 billion hectares** (32% of land).
- **Europe (25%)** holds the largest area. **South America (49%)** has the highest proportion of forested land.
- Five nations — *Russia, Brazil, Canada, USA,* and *China* hold 54% of total forest cover.
- India contributes **~2% of global forests**, marking steady progress in afforestation and sustainable forestry.

India's Success in Expanding Planted Forests

Category	Global Rank	India's Coverage	Remarks
Bamboo Forests	1st in Asia (2nd globally)	**11.8 million ha**	70% of Asia's bamboo area is key livelihood source.
Rubber Plantations	5th	**831 thousand ha**	Contributes to 10.9 million ha globally.
Agroforestry	Among Top 2	**≈39.3 million ha** (shared with Indonesia)	Accounts for 70% of global agroforestry area.

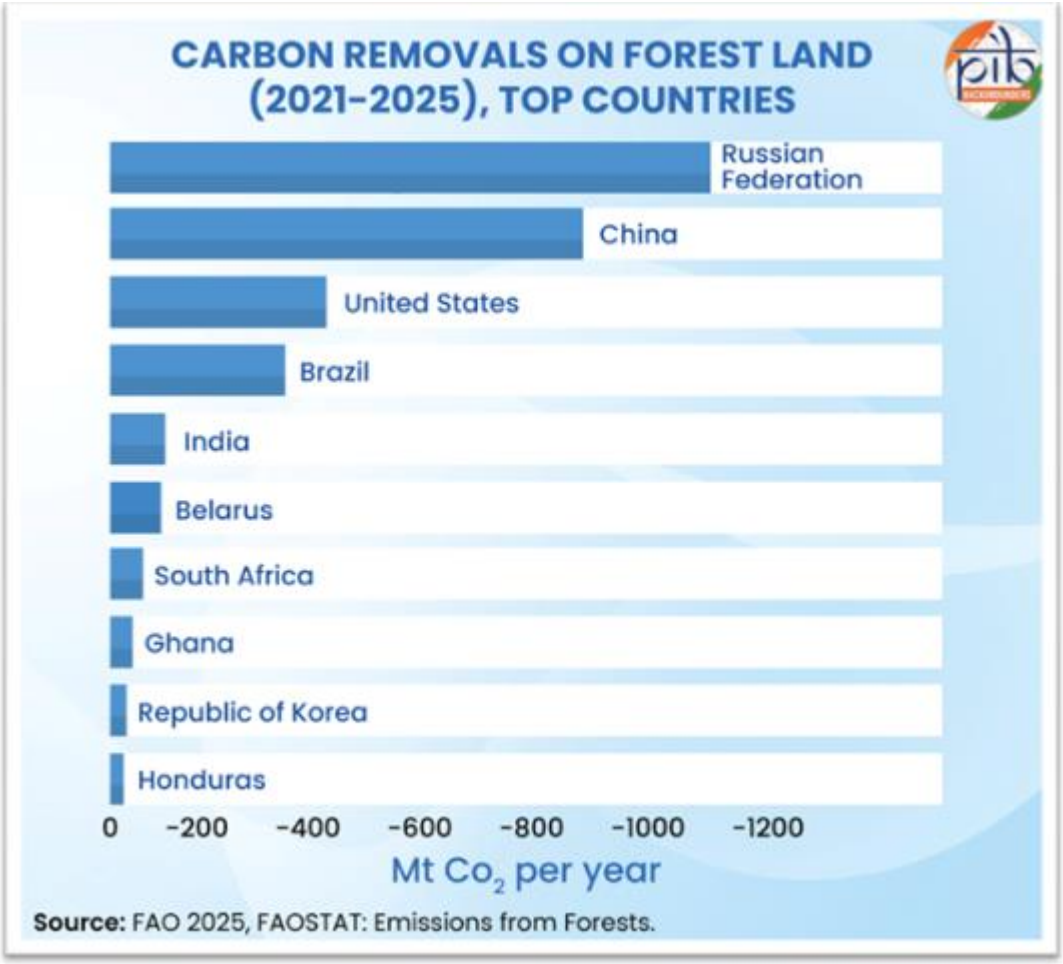
India's large-scale **bamboo, rubber, and agroforestry programmes** have expanded green cover while enhancing livelihoods and soil fertility.

India's Forest Status (ISFR 2023)

Parameter	Status
Total Forest Cover	**7,15,343 sq. km (21.76% of India's land area)**
Top States	Madhya Pradesh (77,073 sq km), Arunachal Pradesh (65,882 sq km), Chhattisgarh (55,812 sq km)
Mangrove Cover	4,992 sq km — majorly in A&N Islands, Gujarat, Maharashtra, West Bengal
Protected Areas	106 National Parks, 573 Wildlife Sanctuaries, 115 Conservation & 220 Community Reserves

Global Carbon Sink & India's Leadership

- India ranked **5th among global carbon sinks**, absorbing **150 Mt CO_2/year (2021–25)**.
- **Asia's carbon removal** rose to **0.9 Gt CO_2/year**, driven by afforestation in India and China.
- India contributes **9% of global wood removals**, ranking **2nd worldwide** (2023).
- Forest carbon sinks in **Europe and Asia** collectively remove **2.3 Gt CO_2/year**, offsetting deforestation emissions.



Government Initiatives Enhancing India's Green Footprint:

1. National Mission for a Green India (GIM)

- Launched under the **National Action Plan on Climate Change (NAPCC)**.
- Targets:
  - **5 million ha** of new forest/tree cover.
  - Improve the quality of another **5 million ha**.
- Aims to **restore ecosystems**, enhance **biodiversity and carbon sinks**, and **support 3 million forest-dependent families**.

2. National Afforestation Programme (NAP)

- Focus: Regeneration of degraded forests and adjoining areas.
- Implemented through **three-tier structure:**
  - *State Forest Development Agency (SFDA)*
  - *Forest Development Agency (FDA)*
  - *Joint Forest Management Committees (JFMCs)*

3. Mission LiFE (Lifestyle for Environment)

- Global call for sustainable living launched by India.
- **UN Environment Assembly** adopted LiFE resolution in 2024.
- **MeriLiFE Portal** enables citizens' green pledges.
- **"Ek Ped Ma Ke Naam"** campaign promotes tree plantation linked with emotional appeal for nature and motherhood.

4. Budgetary Push (2025–26)

- **MoEFCC allocation:** ₹3,412.82 crore (↑9% from 2024–25).
- **Revenue expenditure:** ₹3,276.82 crore (96% of total).
- Focused on afforestation, biodiversity protection, and climate adaptation.

Deforestation and Net Forest Change

- India's **net forest gain** (1990–2025) reflects success in reversing degradation.
- Reduced deforestation and rising afforestation rates have improved ecological balance.
- FAO notes that global **net forest loss** fell by over **60% since 1990**, with India among top contributors to this positive trend.

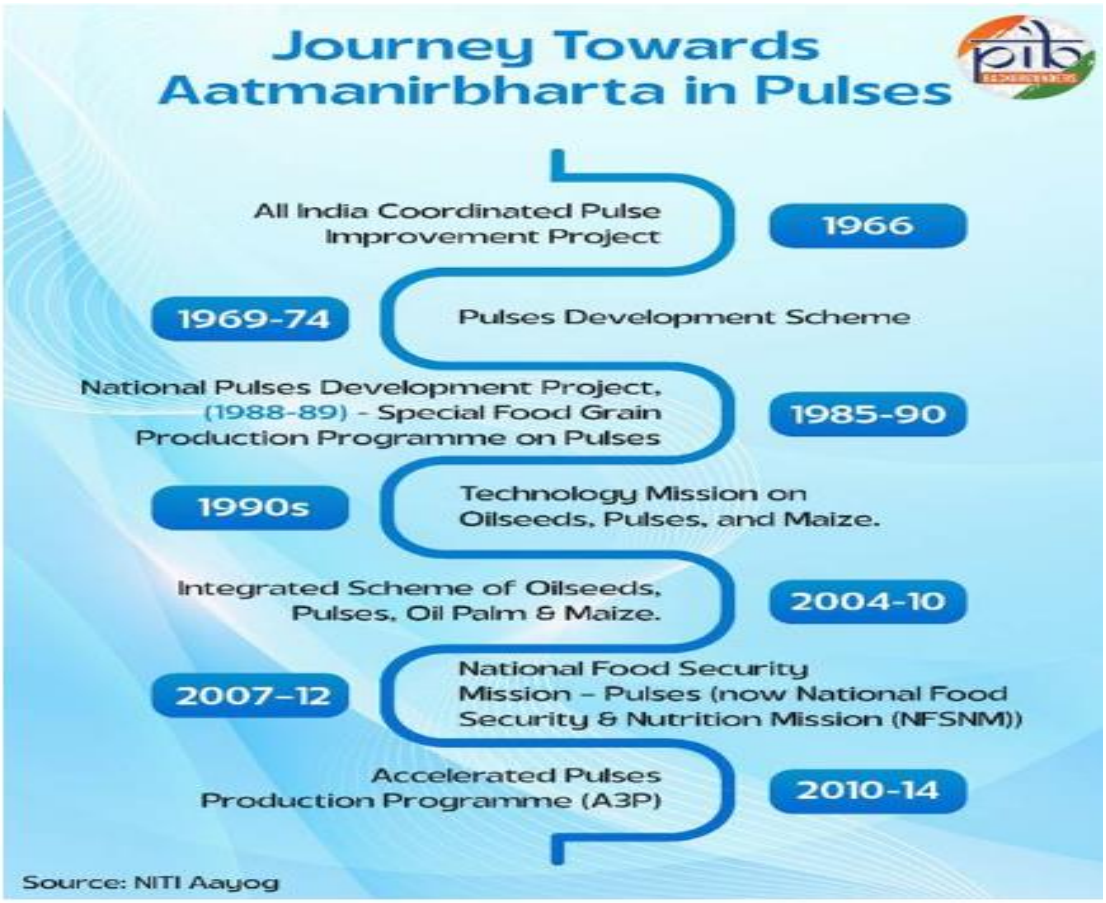
CONCLUSION: As the world strives to combat climate change, **India's expanding green footprint** lights the path toward an equitable and eco-conscious *Viksit Bharat @2047*.

8. MISSION FOR AATMANIRBHARTA IN PULSES (2025–31): TOWARDS NUTRITIONAL AND FARM INCOME SECURITY

Introduction: India's pulses sector stands at the crossroads of **nutritional security, self-reliance, and farmer welfare**. As the largest global producer and consumer of pulses, India still relies on imports to meet domestic demand.

Recognising this challenge, Prime Minister **Narendra Modi launched the "Mission for Aatmanirbharta in Pulses"** on **October 11, 2025**, at IARI, New Delhi. With an **outlay of ₹11,440 crore**, the Mission aims to make India fully self-sufficient in pulses by **December 2027**, integrating productivity enhancement, assured procurement, and value-chain development.

Background



Objective

The **Mission for Aatmanirbharta in Pulses (2025–31)** aims to:

- Achieve **self-sufficiency in pulses** and reduce import dependence.
- **Expand cultivation** by **35 lakh hectares**, especially in rice fallows and suitable areas.
- Promote **intercropping, diversification, and climate-resilient practices**.
- Develop and distribute **126 lakh quintals of certified seeds** and **88 lakh free seed kits**.
- Enhance **farmers' income** through assured procurement, technology adoption, and value-chain development.

Key Takeaways

- **Mission Period:** 2025–26 to 2030–31
- **Budgetary Outlay:** ₹11,440 crore
- **Target:** 350 lakh tonnes production; 310 lakh hectares area under pulses by 2030–31
- **Seed Support:** 88 lakh free seed kits and 126 lakh quintals certified seeds to be distributed
- **Beneficiaries:** Nearly 2 crore farmers
- **Procurement:** 100% MSP procurement of **Tur (Arhar), Urad, and Masoor** for four years under PM-AASHA
- **Value Chain:** 1,000 processing & packaging units with subsidy up to ₹25 lakh per unit
- **Focus:** Climate-resilient varieties, crop diversification, and sustainable soil health

India's Pulse Production – The Context

- Production grew from **192.6 lakh tonnes (2013–14)** to **252.38 lakh tonnes (2024–25)** — a 31% increase under NFSM-Pulses.
- Imports still at **47.38 lakh tonnes (2023–24)** highlight the need for domestic capacity expansion.
- The Mission builds upon initiatives like **A3P (Accelerated Pulses Production Programme)** and the **National Food Security Mission**.
- The initiative aligns with **Vision 2047** — aiming at sustainable growth, nutritional adequacy, and farmer prosperity.

Operational Strategy

- **Seed Ecosystem:**
  - States to prepare **five-year seed production plans**.
  - **ICAR** to monitor breeder seed supply and quality control through **SATHI (Seed Authentication, Traceability & Holistic Inventory)** portal.
  - Promotes "**One Block–One Seed Village**" for local seed hubs and FPO-led distribution.
- **Production Enhancement:**
  - Expansion of **35 lakh ha** in rice fallows and suitable lands.
  - Focus on **high-yielding, pest-resistant, and short-duration varieties**.
  - Emphasis on **intercropping** and **balanced fertilizer use** for soil health improvement.
- **Procurement Assurance (PM-AASHA):**
  - **NAFED** and **NCCF** to ensure complete MSP procurement for key pulses for 4 years.
  - Guarantees **fair prices, reduced market volatility**, and income stability for farmers.
- **Value Chain Strengthening:**
  - Establishment of **1,000 processing & packaging units** to reduce post-harvest losses.
  - Promotes **cluster-based model** recommended by **NITI Aayog** to enhance resource efficiency.

Technological and Institutional Support

- **SATHI Portal:** Tracks the entire seed lifecycle from production to retail, ensuring transparency and traceability.
- **ICAR & KVKs:** To conduct field demonstrations, promote mechanization, and disseminate best practices.
- **NITI Aayog's Recommendations:**
  - Integrate pulses into **PDS and Mid-Day Meal** schemes for nutritional outreach.
  - Strengthen **seed hubs, FPOs, and local procurement centers**.
  - Encourage **bio-fertilizers, efficient irrigation**, and **AI-based early warning systems** for pest/disease monitoring.

Expected Outcomes (By 2030–31)

Parameter	Target
Area under pulses	310 lakh ha
Production	350 lakh tonnes
Yield	1,130 kg/ha
Processing Units	1,000
Farmers Benefited	~2 crore
Import Reduction	Complete self-sufficiency by 2027

Significance

- Advances **Aatmanirbhar Bharat** and **Viksit Bharat 2047** goals.
- Strengthens **food and nutritional security** by increasing protein availability.
- Enhance **farm incomes**, **employment**, and **foreign exchange savings**.
- Encourages **climate-smart agriculture** and **sustainable cropping systems**.
- Supports **rural industrialization** through agri-value chain integration.

CONCLUSION: By coupling scientific innovation with assured procurement and value-chain linkages, it envisions a resilient pulses ecosystem that boosts **farmer incomes, soil health, and national self-sufficiency**.

9. BUILDING INDIA'S SELF-SUSTAINABLE INNOVATION ECOSYSTEM

"Innovation is not just about invention; it is about translating ideas into impact for humanity." — *Dr. Jitendra Singh, Union Minister for Science & Technology*

Introduction

The recent development of **India's first indigenously discovered antibiotic, Nafithromycin**, marks a defining milestone in this journey. This success, achieved through a collaboration between the **Department of Biotechnology (DBT)** and **Wockhardt**, showcases the potential of **industry-academia partnerships** in driving indigenous research excellence.

- Parallelly, the nation's first **indigenous clinical gene therapy trial** for **Hemophilia treatment** underscores India's growing leadership in biotechnology and genomic medicine.
- These developments reinforce India's mission to establish a **self-sustainable innovation ecosystem**, powered by private investment, public research, and global collaboration.

Key Takeaways

- **Nafithromycin-** India's first indigenously discovered antibiotic, effective against resistant respiratory infections.
- Developed jointly by **DBT and Wockhardt** — a model of academia–industry synergy.

- **Gene Therapy Breakthrough-** India's first indigenous clinical trial for Hemophilia achieved 60–70% correction with zero bleeding episodes.
- **Research Milestone-** Over 10,000 human genomes sequenced; target set for one million.
- **Anusandhan National Research Foundation (ANRF)-** ₹50,000 crore outlay, with ₹36,000 crore from non-government sources.

India's Breakthrough in Biopharmaceutical Research

1. Nafithromycin: A Landmark Discovery

- Developed under the **Department of Biotechnology–Wockhardt partnership**, *Nafithromycin* is the **first antibiotic molecule conceptualized, developed, and clinically validated entirely in India**.
- Effective against **resistant respiratory infections**, it is particularly beneficial for **cancer patients and individuals with uncontrolled diabetes**.
- The discovery represents a **quantum leap in India's journey toward pharmaceutical self-reliance** under *Atmanirbhar Bharat*.

2. Gene Therapy: A New Frontier in Indigenous Research

- India's **first successful gene therapy trial** for **Hemophilia** marks a paradigm shift in advanced biomedical research.
- Conducted at **Christian Medical College, Vellore**, with support from DBT, the trial achieved a **60–70% correction rate** and **zero bleeding episodes**.
- Published in the *New England Journal of Medicine*, it cements India's position in the global genomic research landscape.
- Over **10,000 genomes** have already been sequenced, and efforts are underway to scale up to **one million**, enabling breakthroughs in **personalized medicine**.

Towards a Self-Sustainable Innovation Ecosystem

1. Public–Private–Philanthropic Collaboration

- Dr. Jitendra Singh highlighted that India must **reduce dependence on government funding** and encourage **private sector participation** and **philanthropic investment**.
- **Industry–academia linkages** like DBT–Wockhardt exemplify the new innovation model needed for global competitiveness.

2. Anusandhan National Research Foundation (ANRF)

- The ANRF will serve as a **funding and coordination hub** to strengthen India's research base.
- With a **total outlay of ₹50,000 crore**, the model ensures that **non-government sources contribute ₹36,000 crore**, marking a **paradigm shift from state-driven to innovation-driven R&D**.

Artificial Intelligence- The Next Disruptor in Healthcare

- AI is **revolutionizing data analysis, clinical diagnostics, and healthcare access**.
- **Hybrid mobile AI clinics** are expanding medical services to remote areas.
- The **AI-driven grievance redressal platform** of **DARPG** achieves a **97–98% weekly disposal rate**, enhancing citizen satisfaction.
- **Hospitals like Sir Ganga Ram** are pioneering the integration of **AI, biotechnology, and genomics** for improved clinical outcomes.

CONCLUSION

Dr. Jitendra Singh emphasized that India is entering a **new era of innovation-led growth**, powered by:

- **Scientific self-reliance**,
- **Interdisciplinary collaboration**, and
- **Compassion-driven research for humanity.**

Mode : Offline/Online

Ethics Crash Course

LUKMAAN IAS
...Celebrating 14 years of its establishment

For Mains 2026 | By S Ansari

Total No. of Classes: 10+5

(5 Theory Classes, 5 Case Studies & 5 Practice Classes)

- **THE PRACTICE CLASSES = EthicSure Program**
- **The five theory classes include applied ethics & current developments**

AIR 03
AKANSH DHULL
Lukmaan IAS Student of Ethics Case Studies 2023

RESOURCE SUPPORRT

1. One book on Ethics through Current Developments (soft copy for online/hard copy for offline)
2. One book on Facts and Examples (hard copy)
3. One book on 100 Best Case Studies (hard copy)

AIR 11
YASHASWI RAJ VARDHAN
Lukmaan IAS Student of Ethics Crash Course (Enrichment) 2025

Classes Starts From:

8th June 2026

Class Time: 5.00 pm - 7.30 pm

Scan to Register

CRASH COURSE CLASS SCHEDULE

THE 10 DAYS CRASH COURSE			
THEORY SECTION (8th to 12th JUNE)		**CASE STUDY SECTION (15th to 19th JUNE)**	
DAY 1	Chapter: All Normative theories and their applications with PYQs	DAY 1	Society, social justice, women, gender, LGBT, Shelter homes, child labour, tribal issues, workplace harassment, work culture
DAY 2	Chapter: Attitude and EI with PYQs	DAY 2	Environment, ecology, corporate governance, CSR, Development-environment conflict, projects and ethical governance and leadership
DAY 3	Chapter: Values in civil services with PYQs	DAY 3	Civil services, integrity, probity, neutrality, impartiality, social media conduct, corruption, protection of honest officers, whistleblowing
DAY 4	Chapter: Probity in Governance with PYQs	DAY 4	Accountability, transparency, AI and technology, ethical dilemmas, ethical issues, security
DAY 5	Chapter: Leaders and philosophers and terminologies with PYQs	DAY 5	IR, Geopolitical, health, education, elections & SIR, Politics, minister-civil servant relations, consumer protection, advertisement, wildlife-animal protection & ethical issues and urban governance
Class Structure: • Discussion and explanation of concepts/terms • Examples and philosophical application • Linking with structure of answer		**Class Structure:** 1. Theme-wise answer structure: Introduction, body and conclusion 2. Discussion on theme-wise recent case studies 3. A diverse and wide range of coverage of typology of case studies questions including since 2013	

THE 5 DAYS WRITING PRACTICE (Integrated with EthicSure)

FROM 22ND JUNE TO 26TH JUNE (EACH DAY 5 THEORY + 2 CASE STUDIES)	
DAY	**THEMES**
DAY 1	Society, social justice, women, gender, LGBT, Shelter homes, child labour, tribal issues, workplace harassment, work culture
DAY 2	Environment, ecology, corporate governance, CSR, Development-environment conflict, projects and ethical governance and leadership
DAY 3	Civil services, integrity, probity, neutrality, impartiality, social media conduct, corruption, protection of honest officers, whistleblowing
DAY 4	Accountability, transparency, AI and technology, ethical dilemmas, ethical issues, security
DAY 5	IR, Geopolitical, health, education, elections & SIR, Politics, minister-civil servant relations, consumer protection, advertisement, wildlife-animal protection & ethical issues and urban governance
Test Time: 5:00 PM to 6:15 PM	**Discussion Time: 6:15 PM to 7:30 PM**

10. INS VIKRANT: INDIA'S FIRST INDIGENOUS AIRCRAFT CARRIER AND A LANDMARK IN NAVAL CAPABILITY

A Symbol of India's Maritime Self-Reliance and Strength

Introduction: INS Vikrant is India's first **indigenously built aircraft carrier**, designed by the **Indian Navy's Warship Design Bureau (WDB)** and built by **Cochin Shipyard Limited (CSL)**. It is the largest warship ever constructed in India, which was commissioned on **2 September 2022.**

Historical Legacy and Technical Specifications:

- The new INS Vikrant revives the legacy of **INS Vikrant (R11)**, which served with distinction during the **1961 Goa Liberation** and **1971 Indo-Pak War**.
- **Construction Timeline:**
    - Keel laid: February 2009
    - Launch: August 2013
    - Sea trials: August 2021
    - Commissioned: September 2022 at Kochi
- **Indigenous Strength:**
    - 76% made in India; warship steel developed jointly by **Navy + DRDO + SAIL**.
    - Integrated efforts of **BEL, BHEL, GRSE, L&T, Keltron, Kirloskar, Wärtsilä India** and MSMEs.
- **Employment impact:** Over 14,000 jobs created directly and indirectly.
- **Technical Specifications**

Feature	Details
Length / Width	262.5 m / 61.6 m
Displacement	~45,000 tonnes
Powerplant	4 gas turbines = 88 MW
Speed	Up to 28 knots
Crew Capacity	~1,600 personnel (incl. women officers)
Aviation Capacity	30 aircraft (STOBAR system with ski-jump take-off)
Power Output	Equivalent to 5,000 homes
Internal Wiring	Stretching from Kochi to Kashi in length

Milestones & Achievements

- **Sea Trials (Aug 2021):** Validated propulsion, navigation, and weapons systems.
- **First Aircraft Landings (Feb 2023):** Successful LCA (Navy) and MiG-29K operations.
- **Night Landings (May 2023):** Demonstrated high operational readiness.
- **Full Operational Clearance (2024):** Over 750 flight hours of day & night sorties.
- **Multilateral Exercise MILAN 2024:** Hosted 36 ships, 2 submarines, 55 aircraft from 47 nations.
- **Exercise Varuna 2025:** Bilateral ops with France's Charles de Gaulle carrier group.
- **TROPEX 2025:** Participated in India's largest maritime exercise with 150+ platforms.
- **HADR Operation (March 2025):** Conducted emergency MEDEVAC of MV Heilan Star crew.
- **Operation Sindoor:** Led Indian Navy's deterrent deployment in northern Arabian Sea.
- **PM Day at Sea (Oct 2025):** Hon'ble PM celebrated Diwali onboard, marking solidarity with forces.

INS Vikrant service Beyond Combat

INS Vikrant plays a pivotal role in **Humanitarian Assistance and Disaster Relief (HADR)**:

- Serves as a **mobile command centre**, **floating hospital**, and **supply hub** during crises.
- Power systems can sustain emergency relief in remote coastal zones.
- Reinforces India's **SAGAR vision** (Security and Growth for All in the Region), enhancing its reputation as the **Preferred Security Partner** and **First Responder** in the Indian Ocean Region.

Strengthening Indian Maritime: Since 2014, Indian shipyards have delivered **40+ indigenous warships and submarines**, with new platforms commissioned every 40 days. INS Vikrant exemplifies India's success in developing **indigenous warship-grade steel** and complex shipbuilding infrastructure. As of December 2024:

- **133 ships and submarines commissioned in India.**
- **63 of 64 new warships** under construction are **indigenous**.

On April 2025, India signed a **₹63,000 crore deal** for 26 Rafale-Marine jets. Includes pilot training, simulators, weapons, and long-term maintenance. It will equip both **INS Vikrant and INS Vikramaditya**, enhancing air combat capabilities. Plans for a **second Indigenous Aircraft Carrier (IAC II)** and INS Vikrant's permanent berthing at Visakhapatnam show India's continued commitment to maritime self-reliance and regional security.

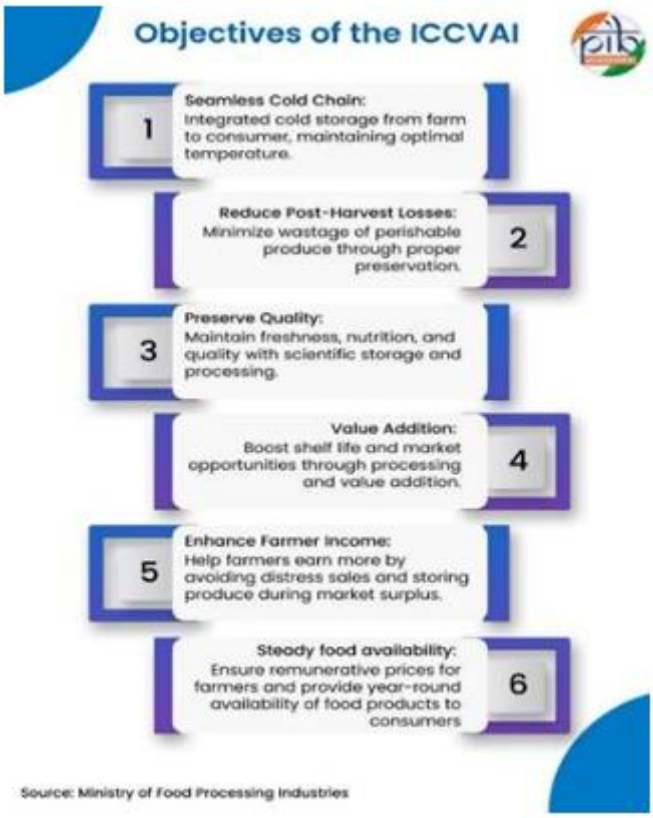
CONCLUSION: INS Vikrant is more than a warship & it stands as a **symbol of confidence**, ensuring that India's blue waters remain secure, sovereign, and self-reliant.

11. INTEGRATED COLD CHAIN AND VALUE ADDITION INFRASTRUCTURE (ICCVAI)

India's Post-Harvest Supply Chain from Farm Gate to Consumer

Introduction:

Ministry of Food Processing Industries (MoFPI) has implemented the **Integrated Cold Chain and Value Addition Infrastructure (ICCVAI)** scheme. It is a core component of the **Pradhan Mantri Kisan Sampada Yojana (PMKSY)**. The main goal is to build a seamless cold chain from farm gate to retail outlet, to reduce post-harvest losses and help farmers secure better returns for their produce.



Key components of ICCVAI

1. **Farm-Level Infrastructure (FLI):** Pre-cooling units, collection centers, and minimal processing facilities.

2. **Distribution Hubs (DH):** Modern pack houses, cold storages, ripening chambers, and grading/sorting units.
3. **Refrigerated Transport:** Insulated vans, reefer trucks, and rail logistics for temperature-controlled distribution.
4. **Value Addition Facilities:** Food processing and packaging units for increasing shelf life and reducing wastage.

The ICCVAI is a **demand-driven scheme** that invites participation from a wide range of stakeholders. Eligible Project Implementing Agencies (PIAs) include individual farmers, Farmer Producer Organizations (FPOs), Self-Help Groups (SHGs), cooperatives, companies, NGOs, and PSUs.

Key Government Initiatives Complementing the ICCVAI Scheme:

To ensure synergy and optimise infrastructure investment, ICCVAI operates in conjunction with several flagship programs:

- **Mission for Integrated Development of Horticulture (MIDH):** Provides capital-linked subsidies for cold storage creation (35% in general areas and 50% in hilly/North-Eastern regions).
- **Operation Greens:** Stabilizes supply chains for perishable commodities like Tomato, Onion, Potato (TOP), and later expanded to fruits and shrimp.
- **National Horticulture Board (NHB) Scheme:** Offers subsidies for cold and controlled atmosphere (CA) storages up to 20,000 MT capacity.
- **Agriculture Infrastructure Fund (AIF):** Provides collateral-free loans up to ₹2 crore at subsidized interest rates for post-harvest and community assets.

In **July 2025**, the Union Cabinet approved an enhanced outlay of **₹6,520 crore** under PMKSY, with **₹1,000 crore dedicated to ICCVAI** for establishing **50 multi-product food irradiation units**.

Achievements so far-

Since its inception, ICCVAI has emerged as a key enabler of India's post-harvest revolution. As of **June 2025**:

- **395 integrated cold chain projects** have been approved.
- **291 projects are operational**, creating **25.52 lakh MT of preservation capacity** and **114.66 lakh MT of processing capacity annually.**
- Over **1.74 lakh jobs** have been generated across states.

A study by **NABCONS (2020)** found that ICCVAI interventions led to a **significant reduction in post-harvest wastage** especially in dairy and fisheries, and contributed to better price realization for farmers.

CONCLUSION: The **Integrated Cold Chain and Value Addition Infrastructure Scheme** embodies India's vision of turning agricultural efficiency into rural prosperity.

12. JAL JEEVAN MISSION: DELIVERING TAP WATER TO EVERY RURAL HOUSEHOLD

Empowering Rural India through Safe Water, Sustainability, and Inclusion

Introduction:

The **Jal Jeevan Mission (Har Ghar Jal)** launched on **15 August 2019** envisions ensuring **functional tap water connection to every rural household**. Rooted in the ethos of *"Jan Bhagidari se Peyjal Prabandhan"*, JJM integrates **community participation**, **technological innovation**, and **sustainability**.

Mission Objectives: The Mission aims to-

- Provide **Functional Household Tap Connections (FHTCs)** to every rural household.
- Ensure **sustainable and safe drinking water sources** through recharge, reuse, and rainwater harvesting.
- Promote **local water governance** through Village Water and Sanitation Committees (VWSCs).
- Strengthen **water quality monitoring and surveillance**, emphasizing women's participation.
- Build a culture of **conservation and self-reliance** in rural water management.

Core Components of JJM

1. **In-Village Piped Water Infrastructure** ensuring 55 litres per capita per day (lpcd).
2. **Sustainable Source Development** through recharge, reuse, and climate-resilient water supply.
3. **Water Quality Management.**
4. **Greywater Reuse and Conservation,** i.e. community systems for waste-water treatment and reuse.
5. **Community Capacity Building** through empowering Gram Panchayats and VWSCs to operate and maintain local systems.
6. Emergency preparedness for droughts or contamination crises called **Contingency Provisions.**

Progress and Achievements:

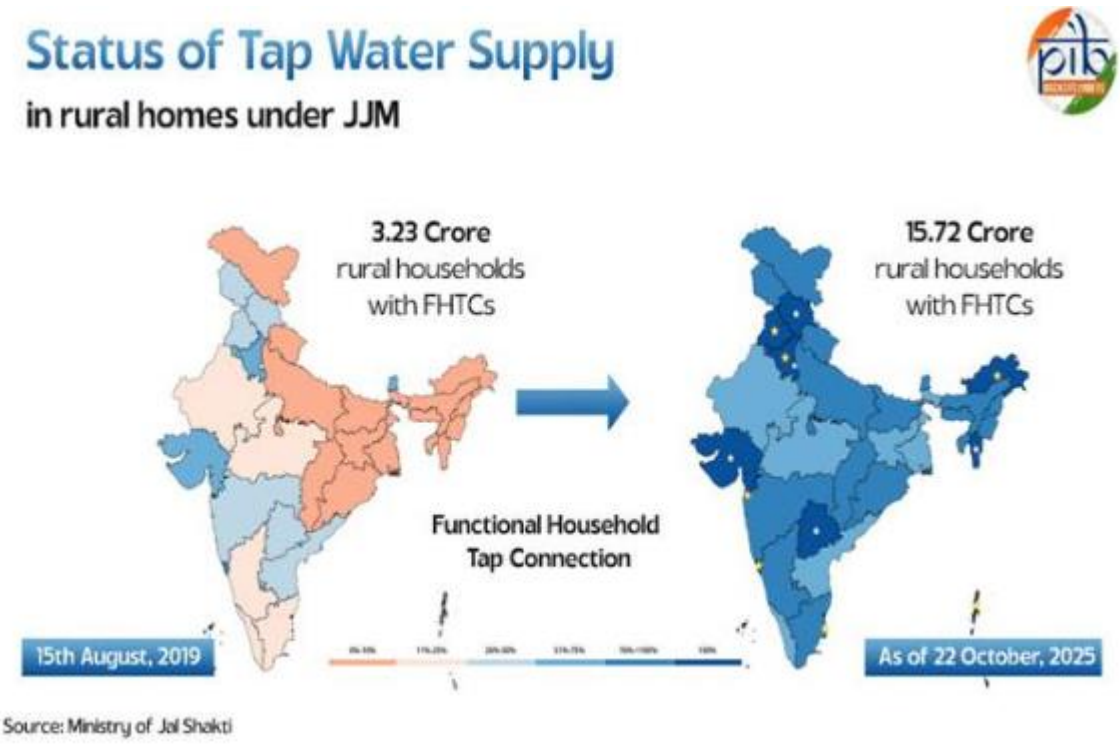
1. Rapid Expansion of Coverage- As of October 2025, **15.72 crore households** have been connected to tap water from a mere **16.7% coverage (3.23 crore homes)** in 2019, marking an addition of **12.48 crore homes in six years**.

- **192 districts**, **1,912 blocks**, and over **2.6 lakh villages** have reported full coverage.
- **11 States/UTs**, including Goa, Gujarat, Himachal Pradesh, and Telangana, have achieved **100% coverage**.
- Tap water supply now reaches **9.23 lakh schools** and **9.66 lakh Anganwadi centres**, reinforcing health and hygiene in education and childcare spaces.

2. Quality Assurance and Monitoring- Water quality monitoring has become a national community enterprise:

- **2,843 laboratories** tested **38.78 lakh water samples** across **4.49 lakh villages** in 2025–26.
- **24.8 lakh women** trained to use **Field Testing Kits (FTKs)**—a landmark in women-led governance.
- These women-led efforts strengthen local ownership, early contamination detection, and public confidence in water governance.

3. Digital Governance for Transparency- The **Rural Piped Water Supply Schemes (RPWSS)** module is integrated with **GIS mapping and PM Gati Shakti** which serves as a **digital registry** of all water schemes. It ensures real-time data tracking, predictive analytics for maintenance, and transparency in fund utilization.



Socio-Economic and Health Impact:

- The **World Health Organization (WHO)** projects that universal JJM coverage will avert nearly **4 lakh diarrheal deaths** and save **14 million DALYs**, generating health cost savings of up to **₹8.2 lakh crore**.
- **Gender Empowerment:** WHO estimates JJM saves **5.5 crore person-hours per day**, three-quarters of which benefit women—enabling their participation in education and economic activity.
- **Employment Generation:** According to **IIM Bangalore** and **ILO**, JJM is expected to create **3 crore person-years of employment**, directly linking water infrastructure to rural livelihoods.
- **Behavioural Transformation:** *SBI Research* noted a **9 crore reduction in women fetching water** and a **7.4% rise** in women's participation in agriculture.
- **Child Health:** Research by Nobel laureate **Michael Kremer** suggests safe water access reduces under-five mortality by up to **30%**, potentially saving **1 lakh lives annually**.

Some Success Stories

1. **Women's Water Leadership – Maharashtra**

   In *Mhapan village*, women's Self-Help Groups operate the entire tap water system—collecting bills, maintaining pipelines, and ensuring 100% cost recovery—turning water management into a model of rural entrepreneurship.

2. **Health and Hygiene – Assam**

   In *Borbori village*, waterborne diseases dropped to zero within two years after the introduction of piped water and hygiene campaigns, funded through community contributions.

3. **Digital Accountability – West Bengal**

   The *Jal Mitra App* replaced manual monitoring with real-time MIS dashboards, tracking **13.7 crore community activities** and ensuring participatory, transparent water governance.

Challenges and Limitations

Despite its transformative progress, several policy and implementation challenges persist. Insights from **The Hindu**, **ORF**, and **Indian Express** highlight the following issues:

1. Nearly **1 in 3 JJM-covered villages** depend on groundwater, raising concerns about long-term sustainability amid climate-induced depletion.
2. **ORF (2024)** notes uneven recharge structures and lack of integrated watershed management in several semi-arid districts.
3. *The Hindu* (May 2024) reported **persistent contamination in arsenic-affected** belts of Bihar, West Bengal, and Assam despite pipeline coverage, due to inadequate treatment and poor maintenance.
4. **Implementation efficiency varies sharply** — states like Gujarat and Telangana have robust monitoring systems, whereas others lag in certification, auditing, and transparency.
5. ORF (2025) cautions that digital modules like RPWSS and Jal Mitra, though revolutionary, face data **inconsistencies due to manual uploads** and weak last-mile connectivity.
6. Reports from *Indian Express* and *Hindu Centre for Policy Research* suggest that Scheduled Tribes and hamlets in remote areas face **delays due to terrain and logistical constraints**.

Way Forward:

- Strengthen source sustainability through **convergence** of JJM with *Atal Bhujal Yojana*, *MGNREGS*, and *Catch the Rain* campaign for holistic watershed recharge.
- Enhance **training and fiscal autonomy** of *Village Water and Sanitation Committees (VWSCs)* for operation, tariff recovery, and system maintenance.
- Expand use of **IoT-based water sensors**, **AI-driven leak detection**, and **GIS monitoring** for predictive maintenance.
- **Institutionalize women's SHGs** as operators and revenue managers in water systems, converting them into social enterprises.
- Prioritize **micro-level water budgeting** and climate-adaptive water harvesting structures, especially in drought-prone and flood-prone regions.

CONCLUSION: As India marches toward *Viksit Bharat 2047*, JJM stands not merely as a water scheme, but as a **national movement for dignity, health, and environmental justice** by ensuring that every household, in every village, enjoys the promise of *Har Ghar Jal*.

13. MARITIME INDIA: FROM VISION 2030 TO AMRIT KAAL 2047

Anchoring India's Global Maritime Leadership

Introduction:

- The Indian government recently published **Maritime India Vision 2030 (MIV 2030)** and **Maritime Amrit Kaal Vision 2047**, reflecting India's intent to transform from a maritime nation to a maritime power.
- They aim to make Indian ports cleaner, greener, and smarter, enabling the country to capture a larger share of global logistics value chains while promoting employment and sustainability.

Maritime India Vision 2030:

Maritime India Vision 2030 (MIV 2030), developed by the Ministry of Ports, Shipping and Waterways represents a transformative roadmap designed to **modernize India's ports, boost competitiveness, and unlock the full potential of the blue economy** was launched in 2021.

Core Objectives of MIV-

- Strengthen port infrastructure, efficiency, and capacity.
- Promote coastal shipping and inland waterways to reduce logistics costs.
- Accelerate shipbuilding, ship repair, and recycling industries.
- Enable digital transformation and smart port governance.
- Enhance India's share in global seafaring and maritime services.
- Deepen sustainability through green shipping and coastal zone protection.

Ten Key Themes of MIV 2030

1. **Port Modernization and New Port Development** – upgrading existing ports and building world-class greenfield ports.
2. **Port-Linked Industrialization** – creation of coastal economic zones and industrial clusters.
3. **Enhancing Logistics Efficiency** – developing multimodal connectivity, warehousing, and port connectivity corridors.
4. **Shipping and Shipbuilding** – increasing Indian tonnage, incentivizing indigenous shipbuilding, and developing ship repair hubs.
5. **Inland Water Transport (IWT)** – expanding national waterways for low-cost, eco-friendly cargo movement.
6. **Coastal Shipping and Passenger Transport** – promoting Ro-Pax, ferries, and cruise tourism.
7. **Digitalization and Innovation** – adopting smart port systems, AI analytics, and blockchain-enabled logistics.
8. **Skill Development and Human Resource Planning** – expanding seafarer training, gender inclusion, and maritime education.
9. **Environmental Sustainability and Green Port Initiatives** – reducing emissions, adopting renewable energy, and waste management.
10. **Policy, Governance, and Institutional Reforms** – enhancing ease of doing business, public-private partnerships, and maritime arbitration.

Maritime Amrit Kaal Vision 2047:

Maritime Amrit Kaal Vision 2047 (MAKV 2047) sets a **long-term strategic direction for the next 25 years**, aligning the maritime sector with India's vision of becoming a **developed nation by 2047**. It integrates port-led development, clean energy transitions, and global maritime leadership under one unified framework.

Key Pillars of Vision 2047

1. **Green Maritime Revolution:** 100% renewable energy in port operations and transition to zero-emission shipping.
2. **Next-Gen Infrastructure:** Fully automated mega ports, shipyards, and logistics corridors.
3. **Global Maritime Hub:** Make India among the top five global shipbuilding and trans-shipment nations.
4. **Innovation & R&D:** Dedicated National Maritime Innovation Centre for decarbonisation technologies.
5. **Maritime Diplomacy & Security:** Strengthen SAGAR vision for secure seas and resilient supply chains.
6. **Blue Economy Expansion:** Promote marine tourism, aquaculture, offshore wind, and seabed resource management.

Development So far:

1. **Ports:**
    a. India's port sector has undergone a quiet revolution. Between 2014 and 2025, total port capacity has **doubled from 1,400 MMTPA to 2,762 MMTPA**, while cargo handling volumes climbed from 972 MMT to 1,594 MMT.
    b. Major ports alone handled ~855 MMT in FY 2024-25, demonstrating resilience amid volatile global trade.
2. **Shipping:**
    a. The number of Indian-flagged vessels has risen from 1,205 to 1,549, and gross tonnage expanded from 10 MGT to 13.52 MGT. Coastal shipping has nearly **doubled to 165 MMT**, reflecting the government's push for multi-modal, low-carbon logistics.
    b. Meanwhile, India's **seafarer workforce** surged from 1.25 lakh to over 3 lakh, accounting for **12 % of the global supply**.
3. **Inland Waterways:**
    a. Cargo movement on inland waterways grew from just 18 MMT in 2014 to **146 MMT in 2025**, marking a >700 % increase. The number of operational waterways jumped from 3 to 29, boosting last-mile connectivity for bulk and container cargo.
    b. The **Haldia Multi-Modal Terminal**, developed with World Bank support, stands as a model for PPP-driven inland infrastructure. **Ferry and Ro-Pax services** now carry **over 7.5 crore passengers annually**, indicating the growing adoption of safe, affordable water transport.
4. **Financing the Waves:**
    a. MIV 2030 envisages **₹ 3–3.5 lakh crore** of investments across ports, shipping, and waterways. Complementing this, the government recently approved a **₹ 69,725 crore package for shipbuilding**, one of the largest sectoral support programmes globally.
5. **Sagarmala:**
    a. The **Sagarmala Programme** remains the flagship of India's port-led development. Out of 840 projects worth ₹ 5.8 lakh crore, **272 projects (₹ 1.41 lakh crore)** have been completed and **217 projects (₹ 1.65 lakh crore)** are in progress.

Challenges Beneath the Surface:

While progress has been remarkable, several challenges persist, as highlighted by *The Hindu*, *Indian Express*, and *ORF* analyses.

1. Overlaps among port authorities, coastal states, and central agencies often delay clearances and dilute accountability.

2. Dredging, coastal erosion, and port emissions threaten fragile ecosystems. India must align port development with blue-carbon accounting and stricter EIA norms.

3. Despite progress, digitalisation of small and non-major ports remains uneven. Adoption of smart logistics, AI-based tracking, and predictive maintenance needs acceleration.

4. Singapore, Dubai, and Colombo ports maintain higher efficiency indices. India must sustain reforms in customs, hinterland connectivity, and maritime arbitration to remain competitive.

CONCLUSION: Nevertheless**,** India's maritime journey from Vision 2030 to Amrit Kaal 2047 reflects a profound transformation, which we can see via the transformation from **shipyards of Visakhapatnam to the inland ports of Varanasi.**

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31st May 2026

Class Time: 5.00 pm - 7.30 pm

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KEY FOCUS AREAS

- ✓ Moving from PESTEL to DEEPHIR
- ✓ Brainstorming on all the 6 major themes through five classes
- ✓ Essay writing practice to remove fear of philosophical essay
- ✓ Imbibing a coherent way of essay writing
- ✓ The key takeaway: Over 50 Popular philosophical quotes/examples on the 6 major themes
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Highest Marks and Top Rank from Essay Programs

127 Marks in Essay

PRACHI SINGHAL
AIR 370 CSE 2025
Essay Test Series 2024

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AKANSH DHULL
AIR 03 CSE 2025
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APURVA VERMA
AIR 42 CSE 2025
Essay Test Series 2025

5 DAYS COURSE PLAN

DATE	Time	CLASS	THEME
31st MAY 2026	5:00 to 7:30 pm	STRATEGY SESSION	Understanding the Changing Trend in Essay from PESTEL to DEEPHIR
1st JUNE 2026	Test: 4:00 to 5:30pm Class: 5:30 to 7:30 pm	Class cum writing practice	Philosophical: Rationality, critical thinking, wisdom, truth, knowledge, morality, ethics and values
2nd JUNE 2026	Test: 4:00 to 5:30pm Class: 5:30 to 7:30 pm	Class cum writing practice	Philosophical: Joy, happiness, contentment, love, good life, human nature, success/failure
3rd JUNE 2026	Test: 4:00 to 5:30pm Class: 5:30 to 7:30 pm	Class cum writing practice	Philosophical: Courage, Character, Power, Greed, Corruption, Human actions, ideas, thinking, power of mind, intellect, creativity & innovations.
4th JUNE 2026	Test: 4:00 to 5:30pm Class: 5:30 to 7:30 pm	Class cum writing practice	Applied topics: Geo-strategic, Eco-environment, gender, social justice, technology, AI, education, health & economy

14. NATIONAL BLOCKCHAIN FRAMEWORK: STRENGTHENING GOVERNANCE THROUGH BLOCKCHAIN TECHNOLOGY

Building Trust, Transparency, and Technological Sovereignty

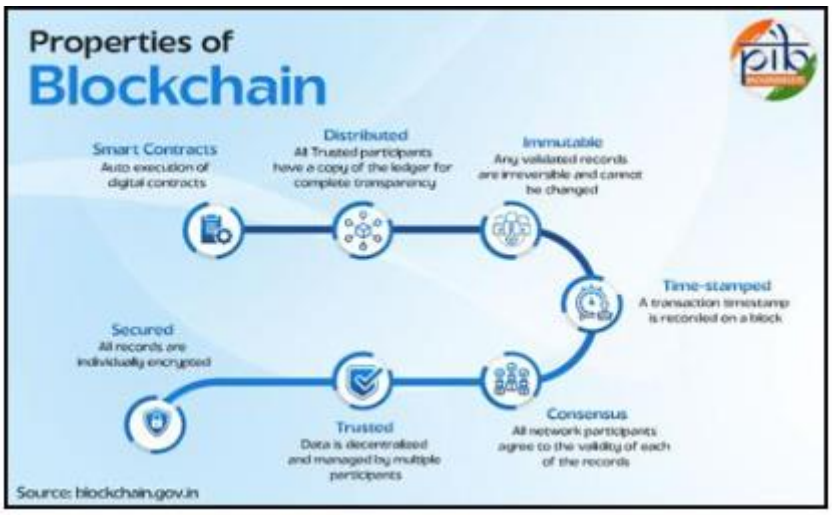
Introduction: Ministry of Electronics and Information Technology (MeitY) launched the **National Blockchain Framework (NBF)** in **September 2024** with an outlay of **₹64.76 crore**. The framework establishes a **unified architecture** for blockchain-based governance solutions, ensuring **secure, scalable, and verifiable digital transactions** across sectors.

What is Blockchain?

Blockchain is a **distributed digital ledger** where records are stored securely across multiple nodes, making tampering nearly impossible. It ensures **transparency, immutability, and trust**, which are crucial for governance.

Types of Blockchain

a. **Public Blockchain:** Open to all but ensures full transparency.
b. **Private Blockchain:** Access restricted to authorized participants & ideal for government use.
c. **Consortium Blockchain:** Jointly managed by multiple institutions.
d. **Hybrid Blockchain:** Combines features of both public and private systems for selective transparency.



National Blockchain Framework (NBF):

National Blockchain Framework launched in September 2024 builds upon MeitY's **Digital India** vision to provide a unified digital backbone for governance. It promotes *interoperability*, *data integrity*, and *citizen trust* through decentralised technologies.

Core Components of NBF

1. Vishvasya Blockchain Stack

- Indigenous, modular, **Blockchain-as-a-Service (BaaS)** platform.
- Deployed across **NIC data centres (Bhubaneswar, Pune, Hyderabad)** ensuring scalability and resilience.
- **Permissioned blockchain layer:** Only verified participants can validate transactions.
- **Open APIs** enable seamless integration with e-governance systems.

2. NBFLite – Sandbox for Startups and Academia

- A **sandbox platform** for innovation and experimentation.
- Enables startups and students to prototype blockchain applications.

- Offers **smart contract templates** in governance areas like *digital certificates*, *supply chain*, and *public data management*.

3. Praamaanik – App Verification Solution

- Ensures **mobile application authenticity** using blockchain records.
- Prevents **fraudulent apps** and protects user data.
- Strengthens trust in the digital ecosystem by verifying app sources securely.

4. National Blockchain Portal

- Central platform for knowledge sharing, standardization, and cross-sector collaboration.
- Showcases India's blockchain projects and acts as a **hub for innovation and policy coordination**.

Blockchain Uses Transforming Governance:

Chain Type	Description & Achievements
Certificate Chain	Secure storage and verification of certificates (e.g., CBSE academic records).
Document Chain	Unified platform for government-issued documents—caste, ration card, driving license, etc.; **48,000+ documents verified**.
Property Chain	Transparent property transaction system ensuring verifiable ownership; **34 crore property documents verified**.
Logistics Chain	Tracks goods through tamper-proof ledgers. *Aushada* (Karnataka) uses blockchain for drug supply monitoring and patient safety.
Judiciary Chain	Facilitates secure e-delivery of summons, bail orders, and case documents; **665 judiciary documents verified**.
Inter-Operable Criminal Justice System (ICJS)	Integrates police, courts, and prisons digitally; **39,000+ documents verified** on blockchain.

Regulatory & Institutional Ecosystem

1. Centre of Excellence (CoE) in Blockchain Technology

- Set up by **National Informatics Centre (NIC)**.
- Provides **consultancy, pilot development, and training** for government departments.
- Uses **Hyperledger Sawtooth, Fabric, and Ethereum** for building secure networks.

2. Role of Telecom Regulatory Authority of India (TRAI)

- Integrated **Distributed Ledger Technology (DLT)** for **SMS and telecom regulation**.
- Over **1.13 lakh entities** onboarded, reducing spam and ensuring message authenticity.

3. Role of Reserve Bank of India (RBI)

- Implemented **Digital Rupee (e₹)** pilot using blockchain.
- Demonstrates traceable, instant, and transparent transactions within closed networks.

4. NSDL's Blockchain Platform

- Introduced **DLT-based Debenture Covenant Monitoring**.
- Enables secure tracking of asset cover ratios and investor data through tamper-proof ledgers.

Capacity Building and Skill Development:

Ministry of Electronics and Information Technology (MeitY) has launched several capacity-building programmes focused on blockchain. These initiatives aim to create a future-ready workforce, which are as follows-

- **214+ training programmes** conducted for **21,000+ government officials** under MeitY's *Capacity Building Division*.

- **Post Graduate Diploma in FinTech & Blockchain Development (PG-DFBD):** 900-hour course on Blockchain, FinTech, AI, ML, and cybersecurity.
- **BLEND (C-DAC Online Course):** Builds conceptual and applied knowledge for students and professionals.
- **FutureSkills PRIME:** Industry-oriented re-skilling programme covering 10 emerging technologies including blockchain.

The NBF paves the way for a **trust-based digital economy**, with ongoing Proof-of-Concepts (PoCs) in key areas:

- **Land Records:** Tamper-proof ownership and transaction history.
- **Blood Bank:** Transparent donation and distribution tracking.
- **GST Chain:** Real-time tax transaction monitoring.
- **Public Distribution System (PDS):** End-to-end traceability for ration delivery.

Limitations & Challenges

- According to the draft strategy of **Niti Aayog,** India suffers from a shortage of technical expertise and evangelists for blockchain.
- In practice, running blockchain at national scale across diverse domains (certificates, property records, supply chain) r**equires high transaction throughput and low latency.**
- Blockchain's redescription by the state suggests "**recentralising effects** where the state, reinvents itself as an intermediary".
- It demands **capital & connectivity,** especially in rural/remote areas and regular maintenance.
- **Bureaucratic resistance, fear of job displacement, and lack of awareness are** other challenges.

However, with its decentralized and interoperable design, the NBF sets the stage for India's transition to **blockchain-enabled e-governance**, enhancing efficiency and citizen confidence.

CONCLUSION: The **National Blockchain Framework** exemplifies India's journey toward a **trusted digital state**—where governance is transparent, secure, and citizen-centric & advancing its vision of *Digital India* and *Aatmanirbhar Bharat*.

15. INTERNATIONAL DAY OF NON-VIOLENCE

Introduction

October 2 marks the birth anniversary of **Mahatma Gandhi**, celebrated in India as **Gandhi Jayanti** and globally as the **International Day of Non-Violence**. Following a 2007 United Nations resolution supported by over 140 countries, this day conveys a universal message of peace and non-violence while retaining its deep roots in India's national consciousness.

The Birth of Satyagraha

- Gandhi's experiences in **South Africa** (1893–1914) laid the foundation for **Satyagraha** — a philosophy of non-violent resistance. Incidents of racial discrimination, including being forcibly removed from a first-class train compartment and assaulted while resisting segregation, galvanized him to fight against injustice peacefully.
- Satyagraha combines **"satya" (truth)** and **"agraha" (insistence)** and emphasizes that **non-violence is the greatest force available to humanity**, as demonstrated in movements like the **Dandi March (1930)** and the **Quit India Movement (1942)**. Gandhi's philosophy inspired global leaders such as **Martin Luther King Jr.** and **Nelson Mandela**, proving its universal relevance.

Gandhi at the UN: The Fifth Ahimsa Lecture

In September 2022, UNESCO's **MGIEP** and India's Permanent Mission to the UN organized the **Fifth Ahimsa Lecture**, themed **"Education for Human Flourishing"**. The event used a **life-size hologram of Gandhi** to communicate his reflections on education and non-violence. It emphasises empathy, moral imagination, and holistic learning as keys to building peaceful, inclusive societies.

Government Initiatives Inspired by Gandhian Philosophy

Initiative	Launched	Gandhian Philosophy	Key Achievements
Swachh Bharat Mission	2014	"Cleanliness is next to godliness"	ODF status achieved in all villages (2019), 12+ crore toilets constructed, 3 lakh children under age 5 saved
Self-Help Groups (SHGs)	DAY-NRLM	Cooperative economics, grassroots empowerment	Rs. 11.1 lakh crore loans disbursed, 10.05 crore women mobilized in 90.9 lakh SHGs
SVAMITVA Scheme	2020	Village self-reliance & Panchayati Raj	65 lakh property cards distributed, 50,000+ villages covered
Khadi & Village Industries	Ongoing	Swadeshi philosophy	Production 4x increase, employment +49%, total employment 1.94 crore
PM Janjatiya Unnat Gram Abhiyan	2024	Tribal advancement	₹79,156 crore outlay, benefits 5 crore tribal citizens
MGNREGA	Ongoing	Right to dignified work	3.83 crore households availed employment, 106.77 crore person-days generated (FY 2025-26)

These initiatives reflect Gandhi's ideals in practical governance, promoting **cleanliness, self-reliance, social justice, and inclusive development**.

Contemporary Global Relevance

Gandhi's philosophy addresses modern challenges such as **conflict, terrorism, inequality, pandemics, and climate change**. UN Secretary-General **António Guterres** noted that Gandhi's vision foreshadowed the **Sustainable Development Goals (SDGs)**. It emphasised sanitation, maternal health, education, gender equality, and hunger reduction long before these global frameworks existed.

International Recognition and Memorials

- During **India's G20 Presidency (2023)**, world leaders paid tribute at **Raj Ghat**, reinforcing Gandhi's ideals as guiding principles in international diplomacy.
- **Global commemorations**: Gandhi statues and memorials exist in **Belgium, USA, Spain, Serbia, Switzerland, Thailand, Kazakhstan, and the Netherlands**, and events like **Gandhi Marches** and cultural programmes celebrate his legacy.

CONCLUSION The **International Day of Non-Violence** is both a national homage and a global call to action. Gandhi's philosophies of **truth, non-violence, and social justice** remain relevant today & guide governments and societies worldwide toward **peace, compassion, and inclusive progress**.

16. PEOPLE'S PLAN CAMPAIGN (PPC): STRENGTHENING GRASSROOT GOVERNANCE, FOSTERING INCLUSIVE GROWTH

Introduction

The Gram Panchayat, as the foundational tier of India's **three-tier Panchayati Raj system**, plays a pivotal role in ensuring participatory democracy and inclusive rural development, which is institutionalised through the **73rd Constitutional Amendment Act, 1992**. Article **243G** empowers

them to prepare plans for these objectives, making Panchayats central to the vision of Viksit Bharat (Developed India).

Background and Rationale

- **Gram Panchayat Development Plan (GPDP)** serves as the main planning tool for villages, promoting **bottom-up planning** and aligning with the **29 subjects in the Eleventh Schedule** of the Constitution.
- Panchayati Raj Institutions (PRIs) act as the closest interface between citizens and governance, delivering basic services such as **water, sanitation, roads, education, health, and nutrition**.
- The planning process not only strengthens democratic participation but also contributes directly to the **localization of Sustainable Development Goals (SDGs)** through a thematic convergence approach adopted by the Ministry of Panchayati Raj.

Gram Panchayat Development Plan (GPDP)

The **GPDP** is a comprehensive and participatory planning exercise that identifies local priorities, mobilizes available resources, and aligns with the broader goals of **economic development and social justice**. Panchayats at different levels prepare:

1. **GPDP** – by Gram Panchayats
2. **BPDP** – by Block Panchayats
3. **DPDP** – by District Panchayats

These plans are integrated to ensure **horizontal and vertical convergence** in planning and implementation. Since **2018**, Self-Help Groups (SHGs) have been involved in preparing **Village Prosperity and Resilience Plans (VPRPs)**, adding community-based perspectives and ensuring gender-sensitive and inclusive planning.

People's Plan Campaign (PPC): Sabki Yojana, Sabka Vikas

The **People's Plan Campaign (PPC) 2025–26** was launched on **2nd October 2025** across all States and Union Territories to prepare Panchayat Development Plans for FY **2026–27**. People's Plan Campaign (PPC) under the theme "Sabki Yojana, Sabka Vikas" was conceived to institutionalize **participatory, convergent, and evidence-based planning** at the grassroots. Conducted annually, the campaign mobilizes:

- **Elected Representatives**,
- **Frontline workers**,
- **Self-Help Groups (SHGs)**,
- **Community-Based Organizations (CBOs)**
- **Local citizens**.

The PPC ensures that the **voices of all sections**, especially marginalized and women groups, are reflected in local development plans. It also enhances **transparency and accountability** through public information campaigns and display of schemes and finances in Gram Panchayat offices.

Objectives of the Campaign

1. **Prepare participatory, comprehensive and convergent development plans** (GPDP, BPDP, DPDP) in a time-bound manner.
2. **Integrate SDGs into Panchayat Development Plans** through nine thematic clusters for Localization of SDGs (LSDGs).
3. **Strengthen gender-responsive governance** by involving Women Elected Representatives (WERs) and SHGs.
4. Promote **transparency, convergence, and accountability** in local governance.
5. Empower Gram Sabhas to act as platforms for deliberation, review, and prioritization of local projects.

Key Features

- Collaboration with **20 Line Ministries/Departments** to ensure convergence and coordinated grassroots action.
- Conduct of **Special Gram Sabhas** to formally launch planning activities.
- Use of **digital tools** such as eGramSwaraj, Meri Panchayat App, and Panchayat NIRNAY for reviewing earlier GPDPs and tracking progress.
- Introduction of **Panchayat Advancement Index (PAI)** as a guiding tool for performance-based planning.
- Promotion of SabhaSaar application to enhance deliberative efficiency.
- Focus on **enhancing Panchayats' Own Source Revenue (OSR)** and local accountability.
- Special focus on **tribal empowerment** through the Adi Karmayogi Abhiyaan.

The campaign emphasizes reviewing past performance, identifying unfinished works, and ensuring effective utilization of unspent **Central Finance Commission (CFC) grants**.

Achievements

As per eGramSwaraj Portal data (as of **29 July 2025**):

- **Over 18.13 lakh Panchayat Development Plans** have been uploaded since 2019–20.
    - **17.73 lakh GPDPs**
    - **35,755 BPDPs**
    - **3,469 DPDPs**

These plans have contributed to **better convergence**, **greater local ownership**, and **alignment of grassroots priorities** with national and global development goals.

CONCLUSION The People's Plan Campaign stands as a transformative reform in decentralized planning & has empowered Panchayats as engines of **self-reliance, accountability, and participatory development**, thereby advancing the vision of **"Viksit Panchayats for Viksit Bharat."**

17. ROADMAP ON AI FOR INCLUSIVE SOCIETAL DEVELOPMENT 2025

Introduction

The roadmap is a pioneering effort to ensure India's journey towards **Viksit Bharat by 2047** is inclusive. The **490 million informal workers** including artisans, farmers, and care providers, form the **heartbeat of India's economy**, yet they face major systemic hurdles to accessing the benefits of the formal sector.

Why to Empower Informal Workers

The challenges faced by informal workers extend beyond income, encompassing access to **trust, skills, and market tools**. The widespread adoption of **AI and frontier technologies** is the critical factor in dismantling four foundational systemic barriers and integrating this massive workforce into the formal economy.

Key Takeaways

- **Target Group:** The roadmap focuses on integrating India's **490 million informal workers** into the formal economy.
- **Central Mission:** Proposes a central, technology-driven initiative called the **Digital Shram Setu** to act as a bridge for empowerment.
- **Trust Layer:** Advocates for a unified, cryptographically secure **Trust Layer** for workers by **2035**, issuing **Verifiable Digital Credentials (VCs)** for identity and work history.

- **Skill Credentials:** The plan calls for issuing **interoperable, DLT-based skill credentials** and deploying **adaptive learning pathways** to match local needs.
- **Vernacular Access:** Utilizes initiatives like **Bhashini** to enable **context-aware smart interfaces** and **vernacular AI assistants**.

Ways to Empower Informal Workers

1. Building a Foundation of Digital Trust

This involves creating a verifiable and secure digital identity for workers, replacing manual records with automated, trustworthy systems.

- **Verifiable Digital Credentials (VCs):**
  - Issue **DLT-based skill credentials** to provide portable and tamper-proof proof of training and work history.
  - Credentials would be stored in a **digital wallet** for self-sovereign identity management.
- **Smart Contracts:**
  - Use **self-executing digital agreements** on a ledger to automatically trigger **milestone-based payments**, ensuring transparent wage disbursal.
- **AI-Powered Verification:**
  - Employ AI for real-time verification of worker identity, background, and contract compliance, reducing the **trust deficit** with employers and financial institutions.

2. Strengthening Skilling and Capability

Solutions are designed to make training scalable, accessible, and aligned with market demand, addressing the **Knowledge & Capability Gaps**.

- **Adaptive Learning:**
  - Deploy **adaptive learning pathways** that match individual progress and local needs, catering to low-literacy workers.
  - Embed **immersive learning modules** for hands-on, practical training experiences.
- **Tracking and Certification:**
  - Utilize **smart contracts** to track and certify apprenticeships and skill acquisition accurately.
  - Leverage platforms like **Skill India Digital Hub** and **PM Vishwakarma Yojna** to implement these technologies.

3. Enhancing Access and Usability (Vernacular Tech)

This strategy addresses the **Systemic Access & Usability Gaps** by making digital platforms simpler, voice-enabled, and multilingual.

- **Vernacular AI Assistants:**
  - Enable **context-aware smart interfaces** and **vernacular AI assistants** (using frameworks like **Bhashini** and **AI4Bharat**).
  - These assistants help low-literacy workers navigate portals and access services independently.
- **Simplified Design:**
  - Redesign public digital services to be text-light, intuitive, and supported by **local dialects**.

4. Strategic AI Interventions in Key Sectors

AI is used to provide sector-specific tools and reduce **Structural Inefficiencies/Tooling Deficit**.

- **Agriculture (Precision Farming):**

- Deploy **AI & IoT precision farming** systems for **real-time, hyperlocal advisory** on soil health, pests, and nutrient management.
- Promote leasing of **solar-powered wearable exoskeletons** to reduce physical strain during manual tasks.

- **Healthcare (Care Workers):**
  - Use AI to match patients with locally available caregivers based on **VC-verified skills and credentials**.

Importance of the AI Roadmap

- Integrates **490 million workers** into the formal economy, providing access to credit, social security, and fair wages.
- Empowers workers with modern tools and demand-aligned skills, boosting their contribution to the economy.
- Ensures that the benefits of **Artificial Intelligence** are distributed equitably, accelerating the vision of **Viksit Bharat 2047**.

CONCLUSION The **Digital Shram Setu** mission, by focusing on creating a foundation of trust and providing accessible, vernacular tools will build a skilled, confident, and resilient workforce that drives India's future growth.

18. SECURING EVERY PLATE: INDIA'S MULTI-FACETED MISSION TO ENSURE FOOD AND NUTRITIONAL EQUITY FOR 81 CRORE CITIZENS

Introduction

Food security means ensuring that every individual has consistent physical and economic access to safe, nutritious, and sufficient food for an active and healthy life. In India, this mission rests on a dual framework-

- **Food production** through the *National Food Security & Nutrition Mission (NFSNM)* and **equitable distribution** through the *National Food Security Act (NFSA), 2013*. Together, they guarantee food and nutritional equity for nearly **81 crore citizens**, ensuring that "no plate goes empty."

1. Evolution of India's Food Security Framework

From NFSM to NFSNM:

- **2007–08:** Launch of *National Food Security Mission (NFSM)* to increase rice, wheat, and pulse production through productivity enhancement and soil restoration.
- **2014–15:** Expanded to include coarse cereals.
- **2024–25:** Renamed as *National Food Security & Nutrition Mission (NFSNM)* with dual emphasis on food and nutrition.
- **Provides farmers** with certified seeds, crop protection support, integrated nutrient management, and capacity-building training.

NFSA- 2013:

- Ensures legal entitlement to subsidized (now **free**) foodgrains for up to **75% of rural** and **50% of urban** populations.
- Complements NFSNM by focusing on **distribution and inclusivity**, bridging production with consumption.

2. National Food Security Act (NFSA), 2013 and Targeted Public Distribution System (TPDS)

Component	Details
Coverage	81.35 crore beneficiaries as per Census 2011.
Entitlements	AAY: 35 kg foodgrains/household/month, PHH: 5 kg/person/month.
Cost	Free of cost since Jan 2023; extended till Jan 2029.
Financial Outlay	₹11.80 lakh crore fully funded by the Centre.
Beneficiaries (2025)	78.90 crore citizens.
Nutrition Support	Meals for pregnant women, lactating mothers, and children (6 months–14 years) under **ICDS** & **PM POSHAN**
Cash Benefit	₹6,000 maternity support for women

TPDS Mechanism:

- **Central Govt:** Procurement, allocation, and transport via FCI.
- **State/UT Govts:** Beneficiary identification, ration card issuance, intra-state distribution, FPS supervision.

3. Beneficiary Identification

Antyodaya Anna Yojana (AAY):

- Poorest of the poor, households headed by widows, elderly, disabled, or terminally ill persons.
- Includes primitive tribal households, landless labourers, slum dwellers, and BPL HIV-positive families.

Priority Households (PHH):

- Identified by States/UTs based on local criteria.

Continuous Updating:

- Under *TPDS Control Order, 2015*, States regularly weed out ineligible or duplicate ration cards to maintain transparency and accuracy.

4. Key Government Initiatives Ensuring Food Security

(a) Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)

- Launched during COVID-19 to provide free foodgrains to poor households.
- Now merged with NFSA from Jan 2023 for **5 years (till 2029)**.
- Financial outlay: ₹11.80 lakh crore.

(b) Rice Fortification Initiative

- **Launched:** 2019 (Pilot); scaled up 2021–24.
- **Goal:** Supply **100% fortified rice** under all Central schemes (PMGKAY, ICDS, PM-POSHAN).
- **Micronutrients:** Iron, Folic Acid, Vitamin B12.
- **Funding:** ₹17,082 crore till 2028.
- **Coverage:** All 36 States/UTs achieved universal fortification by March 2024.

(c) Direct Benefit Transfer (DBT)

- **Introduced:** 2015; implemented in Chandigarh, Puducherry, DNH&DD.
- Transfers cash equivalent of food subsidy directly to beneficiaries' accounts.
- Objectives: Reduce leakages, improve dietary diversity, and empower choice.

(d) Integrated Child Development Services (ICDS)

- Provides nutritious meals or take-home rations for children (6 months–6 years), pregnant and lactating women, and adolescent girls.

- FY 2024–25 allocation: **26.46 LMT** of foodgrains.

(e) PM POSHAN (Poshan Shakti Nirman)

- Successor of Mid-Day Meal Scheme.
- Provides **nutritious meals to schoolchildren (6–14 years)** in Govt. and aided schools.
- FY 2024–25 allocation: **22.96 LMT** of rice and wheat.

(f) One Nation, One Ration Card (ONORC)

- Implemented across all **36 States/UTs**.
- Enables **81 crore beneficiaries** to access rations anywhere in India using Aadhaar-based ePoS authentication.
- **Portability Transactions (till Oct 2025):** 191 crore.

5. Public Distribution System (PDS) and Open Market Sales Scheme (OMSS-D)

Aspect	Achievements / Highlights
Digitization	100% digitized ration cards and beneficiary databases.
Aadhaar Seeding	99.9% of ration cards seeded.
Automation	99.6% FPSs equipped with ePoS.
Transparency Tools	Online grievance redressal, toll-free helpline (1967/1800).
OMSS-D Role	Stabilizes market prices, increases availability, and curbs inflation.
Consumer Schemes	*Bharat Atta* and *Bharat Rice* at subsidized rates.

6. Procurement, Storage and Distribution Mechanism

Procurement Systems:

- **Decentralized Procurement (DCP):** States procure, store, and distribute grains.
- **Centralized (Non-DCP):** FCI handles procurement and transfers across States.

Stock Position (as of July 2025):

- Rice: **377.83 LMT** against norm 135.40 LMT.
- Wheat: **358.78 LMT** against norm 275.80 LMT.

Procurement Highlights (2024–25):

- Paddy: **813.88 LMT**, ₹1.9 lakh crore, 1.15 crore farmers benefited.
- Wheat: **266.05 LMT**, ₹60,526.8 crore, 22.49 lakh farmers benefited.
- RMS 2025–26: **300.35 LMT wheat**, ₹72,834.15 crore, 25.13 lakh farmers.

7. Digital and Technological Reforms in PDS

Mera Ration 2.0 App (Launched August 2024)

- Real-time info on entitlements, withdrawal history, and nearest FPS.
- Over **1 crore downloads**.

Anna Mitra App

- Empowers FPS dealers and food inspectors with digital tools for monitoring, stock tracking, and compliance.
- Operational in **15 States/UTs**; rollout ongoing.

SMART-PDS (Scheme for Modernisation and Reforms through Technology)

- Launching by **December 2025** in phases.
- Focus areas: Procurement, supply chain, ration card management, and biometric e-KYC-based grain distribution.

CONCLUSION India's food security ecosystem stands as a global model of **production-driven and rights-based governance**. Through the synergy of *NFSNM* and *NFSA*, complemented by digital reforms and flagship initiatives like *PMGKAY*, *ONORC*, and *SMART-PDS*, the nation ensures food and nutritional equity for **81 crore citizens**.

19. SOAR: FOSTERING AI-DRIVEN EDUCATION AND SKILL DEVELOPMENT

"AI literacy is not a luxury but a necessity in the digital age" – Government of India

Introduction

The Ministry of Skill Development and Entrepreneurship (MSDE) launched the **Skilling for AI Readiness (SOAR)** initiative in **July 2025**, aligning with the **10-year milestone of the Skill India Mission**. It aims to integrate **AI literacy and skilling** into the national education and vocational training ecosystem, targeting **students (Class 6–12)** and **educators**.

SOAR's Mission

1. **Foster AI Awareness:** Cultivates AI literacy among students and educators by introducing concepts like **machine learning, data ethics, and responsible AI use**. Teachers are trained to embed AI knowledge in classroom curricula.
2. **Support Economic Self-Reliance:** Promotes **Atmanirbhar Bharat** by skilling youth for high-demand digital sectors, aligned with **PMKVY 4.0** and **Skill India Digital Hub (SIDH)**.
3. **Build a Tech-Driven India:** Develops a talent pipeline for **AI-driven careers, data analytics, and digital entrepreneurship**, strengthening India's global technological leadership.

Key Highlights

Component	Details
Target Group	Students (Class 6–12) and Educators
Modules	3 student modules (15 hours each), 1 educator module (45 hours)
Budget Allocation	₹500 crore in Union Budget 2025–26 for Centre of Excellence in AI
Apprenticeship Training	1,480 trained in AI roles (FY 2022–2026) under NAPS-2
Curriculum Integration	AI introduced in CBSE schools (Class IX & XI), AICTE institutions, IITs
Digital Platforms	Skill India Digital Hub (SIDH), PMKVY 4.0, NAPS, ITIs, NSTIs

Artificial Intelligence- Transforming India's Education Landscape

1.AI in School Curriculum

- Following **NEP 2020**, AI has been integrated into school education to enhance digital literacy.
- **CBSE** introduced AI as a subject in Class IX (2019–20) and extended it to Class XI (2020–21), emphasizing **practical learning and innovation**.

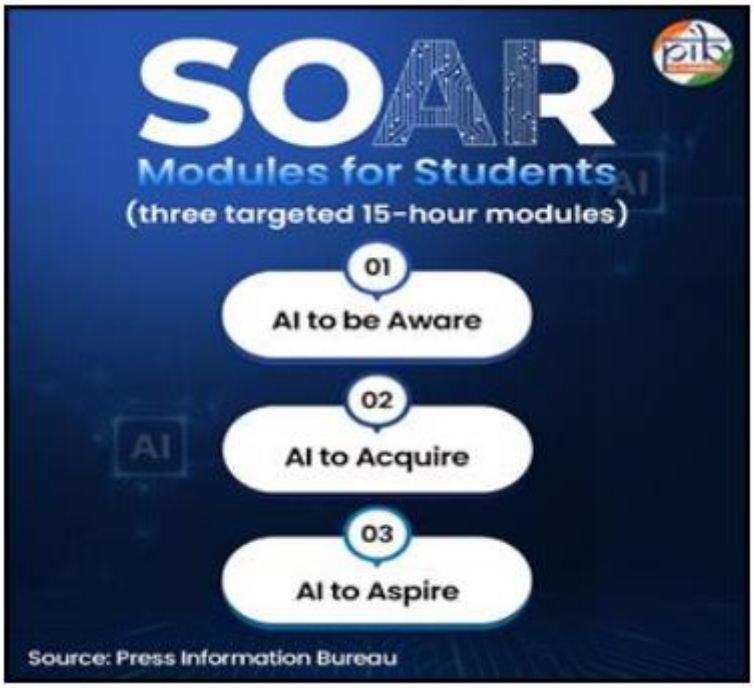
2.Centre for Excellence in AI

- A national **Centre for AI Excellence** is being set up to advance **AI adoption in education**.
- Focuses on **AI for Indian languages**, classroom innovation ("**chalkboards to chipsets**"), and **critical thinking**.
- **AICTE** has recommended offering AI electives in higher education, with **IITs** already providing advanced AI courses like **Deep Learning and Predictive Data Analytics**.

3.AI in Skill India Mission (SIM)

- Integration of AI into **PMKVY 4.0**, **NAPS**, **ITIs**, **NSTIs**, and **SIDH** to build an **AI-ready workforce**.
- **PMKVY 4.0:** Emphasises short-term, futuristic skill training.

- **NAPS-2:** Promotes on-the-job AI training and apprenticeships.



Strategic Significance

- Equips educators to **integrate AI into pedagogy**, ensuring alignment with industry needs
- Ensures **urban-rural parity** in digital skills through accessible platforms like SIDH.
- Promotes **inclusive skilling** across **government and private schools**.
- **Centre for Excellence in AI** to promote AI in Indian languages and critical thinking.
- **IITs and AICTE institutions** offering advanced AI courses like Deep Learning, Predictive Analytics.
- NEP recommends **AI as a contemporary subject** to foster innovation and digital literacy. CBSE has already implemented AI as a subject since 2019.

CONCLUSION SOAR is a transformative step in embedding **AI literacy and skilling** into India's education and workforce development strategy. It not only prepares students and educators for the **future of work** but also contributes to the **Viksit Bharat @2047** vision.

20. UNION GOVERNMENT'S COMPREHENSIVE STRATEGY AGAINST NAXALISM

A Decade of Decisive Action: From Violence Reduction to Development and Reintegration

Introduction: Union Government has moved from a fragmented counter-insurgency approach to a comprehensive and coordinated strategy that integrates **Dialogue, Security, and Coordination**. The government aims to make all affected districts Naxal-free by **March 2026**.

Declining Violence Trend

- Between 2004–2014 and 2014–2024, violent incidents fell from 16,463 to 7,744, security personnel deaths declined from 1,851 to 509, and civilian fatalities from 4,766 to 1,495.
- Over **576 fortified police stations** and **336 security camps** have been built in vulnerable areas.
- The number of most-affected districts has dropped from **35 in 2014 to just 6 in 2024**, signalling a geographical contraction of insurgent influence.

- To enhance real-time intelligence and field coordination, agencies now employ **AI-based analytics, drone reconnaissance, satellite imagery, and forensic tracking**.
- Night-landing helipads and improved mobility infrastructure ensure rapid response during operations.

Strategies to dismantle Naxalism:

1. **Finance Networks-**
   - Government has targeted the **financial backbone** of Naxalism. A dedicated vertical within the **National Investigation Agency (NIA)** has seized assets worth ₹40 crore, while the **Enforcement Directorate (ED)** confiscated ₹12 crore linked to Naxal funding channels.
   - Parallel efforts by state agencies have neutralised several extortion and smuggling networks. These coordinated actions have curtailed the capacity of insurgent groups to procure arms or sustain information warfare.
2. **Development and Inclusion-**
   - **Road Connectivity:** Over **12,000 km** of roads completed with ₹20,815 crore sanctioned for 17,589 km.
   - **Digital & Mobile Connectivity:** 2,343 2G and 2,542 4G towers sanctioned; 1,139 operational in high-risk zones.
   - **Financial Access:** Over 1,000 bank branches, 900 ATMs, and 37,000+ banking correspondents established.
   - **Education & Skills:** ₹495 crore allocated under Kaushal Vikas Yojana for 48 ITIs and 61 Skill Development Centres — many now operational.

Together, these measures are enabling socio-economic empowerment, generating employment, and integrating remote districts into the national development mainstream.

3. **Rehabilitation and Reintegration of Former Cadres**
   - Financial support of **₹5 lakh (high-rank)** and **₹2.5 lakh (mid/low-rank)** is provided, along with a **₹10,000 monthly stipend** for 36 months of vocational training.
   - In 2025 alone, **521 cadres surrendered**, and over **1,000 surrenders** were recorded in Chhattisgarh within two years.
   - Programmes like the **Bastariya Battalion**, with 1,143 recruits from local tribal communities, symbolise the transformation of former conflict zones into partners in peace and progress.
4. **Proactive Recovery**
   - Sustained intelligence-based operations such as Black Forest, Octopus, Double Bull, and Chakrabandha have dismantled major Naxal command structures.
   - Strategic zones such as **Budha Pahar, Parasnath, Baramsia, and Chakrabandha**, once insurgent strongholds, are now under administrative control.
   - The entry of security forces into **Abujhmaad**, a region long dominated by the People's Liberation Guerrilla Army, marks a historic achievement in state reclamation.

Limitations and Challenges Ahead

While progress is undeniable, experts caution that **deep-rooted socio-economic vulnerabilities** still persist, like-

- Reports by **The Hindu and Indian Express** note that security successes must be matched by faster development execution to prevent re-emergence of discontent.
- According to **ORF analyses**, differing capacities of state police forces and lack of consistent central-state coordination continue to hinder unified action.
- Excessive **militarisation or delays in land** and forest rights implementation risk alienating tribal populations.

- **Limited post-surrender** livelihood support remains a weak link, leading to sporadic relapses in some regions.
- Analysts warn that the goal of a fully Naxal-free India by March 2026 must be backed by long-term governance and institutional continuity beyond short-term operations.

CONCLUSION: Yet, true victory lies not merely in territorial control but in the restoration of trust between the state and its people.

21. UNLOCKING INDIA'S LINGUISTIC FUTURE THROUGH TECHNOLOGY

"A language is simply not just a mode of communication; it is the soul of a civilization, its culture, its heritage." — **Prime Minister Narendra Modi**

Introduction: The Government of India is leveraging **Artificial Intelligence (AI)**, **Natural Language Processing (NLP)**, and **machine learning** to create language technologies that democratize digital access. These innovations ensure that every citizen, regardless of their mother tongue, can seamlessly engage with governance, education, and economic opportunities.

Reimagining Linguistic Inclusion through Technology

- AI-driven platforms are revolutionizing how Indian languages are preserved and used. Flagship initiatives like **Bhashini**, **BharatGen**, and **Adi-Vaani** are expanding digital access across governance, healthcare, and education.
- Complemented by projects such as **SPPEL** and **Sanchika**, these platforms transform India's linguistic diversity into a source of technological strength. Initiatives taken by the government are as follows-

1. **Adi-Vaani: AI for Tribal Language Inclusion**
   - **Adi-Vaani** Launched in 2024, is India's first AI-driven platform dedicated to real-time translation and preservation of tribal languages like Santali, Bhili, Mundari, and Gondi. Using advanced **speech recognition** and **NLP**, it bridges the communication gap between tribal and mainstream languages.
   - The initiative underscores India's commitment to linguistic equity and tribal empowerment through technology.

2. **SPPEL and Sanchika: Preserving Endangered Voices**
   - The **Scheme for Protection and Preservation of Endangered Languages (SPPEL)**, implemented by the **Central Institute of Indian Languages (CIIL), Mysuru**, documents and digitally archives languages spoken by fewer than 10,000 people.
   - Its companion platform, **Sanchika**, serves as a digital repository aggregating dictionaries, primers, storybooks, and multimedia resources for Scheduled and tribal languages.
   - These archives not only safeguard linguistic heritage but also provide **critical datasets for training AI and NLP models**, powering translation systems and educational applications.

3. **BharatGen: Multilingual AI for the Digital Economy**
   - **BharatGen** develops advanced **text-to-text** and **text-to-speech** translation models for all 22 Scheduled Languages. Using data from SPPEL and Sanchika, it supports applications across governance, education, and healthcare.
   - BharatGen ensures that citizens can access digital services and content in their preferred language—building a bridge between linguistic diversity and digital empowerment.

4. **Bhashini: The National Language Translation Mission**
    - Under the **National Language Translation Mission (NLTM)**, **Bhashini** enables real-time translation across India's linguistic spectrum. It integrates **speech recognition**, **machine translation**, and **natural language understanding**, fostering linguistic inclusion in e-governance, education, and citizen services.
    - Notable innovations include **Sansad Bhashini**, which enables AI-powered translation of parliamentary debates, and **GeMAI**, an AI multilingual assistant integrated into the **Government e-Marketplace (GeM)**, facilitating procurement processes across Indian languages.

Education and Linguistic Inclusion

India's multilingual education strategy under **NEP 2020** finds strong technological support through AI-based tools:

- **Anuvadini App**: Translates engineering, medical, and law textbooks into Indian languages.
- **e-KUMBH Portal**: Offers free access to technical books in regional languages, aligning with NEP's vision of education in the mother tongue.
- **SWAYAM Platform**: Hosts multilingual digital courses, with over **5 crore learners** as of 2025.

These initiatives, combined with Bhashini and BharatGen, are transforming India's learning ecosystem.

Technology Driving the Transformation: India's multilingual ecosystem is built on an advanced AI architecture:-

- **Automatic Speech Recognition (ASR)** – Converts speech into text in native languages.
- **Text-to-Speech (TTS)** – Delivers natural voice outputs for accessibility.
- **Neural Machine Translation (NMT)** – Provides context-sensitive translation across languages.
- **Natural Language Understanding (NLU)** – Enables intelligent, language-aware digital assistants.
- **IndicBERT and mBART Models** – State-of-the-art multilingual transformers trained on vast Indian language corpora.

CONCLUSION: This vision embodies *Digital India's* core philosophy, i.e. empowering every citizen, in every language, to engage, learn, and thrive.

22. WORLD FOOD DAY 2025

"Hand in Hand for Better Foods and a Better Future"

Introduction

World Food Day, observed annually on 16 October, marks the founding of the Food and Agriculture Organization (FAO) of the United Nations in 1945. It serves as a global call to action to eradicate hunger, improve nutrition, and promote sustainable agrifood systems.

- Celebrated across 150 countries, World Food Day has become one of the most observed UN commemorations, promoting collective action for a world free from hunger.
- The **2025 theme** — **"Hand in Hand for Better Foods and a Better Future"** — highlights the importance of international cooperation among governments, communities, and private sector to transform global agrifood systems.

Building a Nourished and Sustainable Nation

India, with its vast agrarian base, has made remarkable progress in addressing hunger, strengthening food systems, and achieving self-sufficiency in major food commodities. Over the past decade:

- Foodgrain production has risen by **90 million metric tonnes**, and fruit & vegetable output by **64 million metric tonnes**.
- India now ranks **first globally in milk and millets production** and **second in fish, fruit, and vegetable output**.
- Honey and egg production has **doubled since 2014**, while **agricultural exports have nearly doubled** over 11 years.

These achievements reflect India's resilience and sustained commitment to ensuring food security while aligning with global Sustainable Development Goals i.e. SDG 2: Zero Hunger.

Key Government Initiatives Ensuring Food and Nutritional Security

1. National Food Security Mission (NFSM) → National Food Security & Nutrition Mission (NFSNM)

- Launched in **2007–08**, the NFSM aimed to increase rice, wheat, and pulse production by enhancing productivity, restoring soil fertility, and generating rural employment.
- Expanded in **2014–15** to include coarse cereals, it was renamed **NFSNM (2024–25)** to integrate **nutrition goals** with food production.
- This mission now focuses on sustainable productivity, farmer welfare, and bridging the nutrition gap through diversification of crops and improved soil management.

2. National Food Security Act (NFSA), 2013

The NFSA ensures the **right to food** for 81.35 crore people — covering **75% of rural and 50% of urban populations** under:

- **Antyodaya Anna Yojana (AAY):** 35 kg of foodgrains per family per month
- **Priority Households:** 5 kg per person per month

Currently, about **78.9 crore beneficiaries** are covered. Together with NFSM/NFSNM, the NFSA ensures both **food availability and equitable access**, forming a two-pillar system for food security — one driving production, the other ensuring distribution.

3. Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)

- Initiated during the COVID-19 pandemic to support vulnerable households, **PMGKAY** provides 5 kg free foodgrains to NFSA beneficiaries. The scheme, now extended for **five years from 1 January 2024**, involves a total **financial outlay of ₹11.80 lakh crore** borne entirely by the Central Government.

4. PM POSHAN (POshan SHAkti Nirman) Scheme

- Replacing the Mid-Day Meal Scheme, **PM POSHAN** ensures one hot, nutritious meal per day for all children aged up to 14 years in government and aided schools. It promotes health, learning outcomes, and social equity.
- **FY 2024–25 allocation:** 22.96 LMT of rice and wheat
- Integrated with rice fortification to enhance micronutrient intake among children.

5. Rice Fortification Initiative

- To address micronutrient deficiencies, the **Rice Fortification Initiative** was launched as a pilot in **2019** and scaled up nationwide following the Prime Minister's 2021 Independence Day announcement.
- Fortified rice is enriched with **Iron, Folic Acid, and Vitamin B12**.
- By **March 2024**, **100% fortified rice** was supplied under PMGKAY, ICDS, and PM POSHAN across all States/UTs.

- Recently, the Cabinet approved the continuation of the initiative till **December 2028**, with **₹17,082 crore** of full Central funding.

Reforms in Public Distribution System (PDS)-Modernisation and Technology

To improve efficiency, transparency, and accountability, the government has launched **SMART-PDS (Scheme for Modernization and Reforms through Technology)**, to be implemented nationwide by **December 2025**. Key modules include:

1. Foodgrain procurement management
2. Supply chain allocation and monitoring
3. Digital ration card and FPS management
4. Biometric-based e-KYC and distribution

Other reforms:

- **Digitization:** 100% digitized ration cards and beneficiary databases
- **Aadhaar Seeding:** 99.9% cards seeded with Aadhaar
- **Automation:** Nearly all Fair Price Shops now have **ePoS devices**
- **One Nation, One Ration Card (ONORC):** Nationwide portability of benefits
- **Mera Ration 2.0 App (2024):** Over **1 crore downloads**, providing real-time entitlement data, nearby FPS locator, and grievance redressal support

These reforms enhance transparency, prevent leakages, and make food access citizen-centric and technology-driven.

Open Market Sales Scheme (Domestic) – OMSS(D)

- To stabilize foodgrain prices and ensure availability, surplus wheat and rice are sold in open markets under **OMSS(D)**. This strategy helps control inflation and improves affordability for consumers.
- Complementary initiatives like **Bharat Atta** and **Bharat Rice** provide essentials at subsidized prices under the same policy, ensuring market balance and consumer welfare.

Mission for Aatmanirbharta in Pulses (2025–31)

- Launched on **11 October 2025**, this mission aims to achieve **self-reliance in pulse production** with an **₹11,440 crore** allocation. Targets include:
    - Increasing cultivation area by **35 lakh hectares**
    - Benefiting **2 crore pulse farmers**
    - Enhancing nutritional security and reducing import dependency

This initiative strengthens India's journey toward **Aatmanirbhar Bharat** in food production and nutrition.

Indian Thali in Global Spotlight

The **WWF Living Planet Report (2025)** recognized the **Indian Thali** for its nutritional value and environmental sustainability.

- The traditional plant-based Indian diet minimizes natural resource use and reduces greenhouse gas emissions.
- The report noted that if the world followed India's dietary model, **only 0.84 of an Earth** would be needed to sustain global food production by 2050.

This recognition underscores India's contribution to sustainable consumption and global environmental health.

CONCLUSION Through initiatives such as **NFSA**, **PMGKAY**, **PM POSHAN**, and **SMART-PDS**, alongside global leadership showcased in **World Food India 2025**, India exemplifies how policy, technology, and

compassion can converge to secure food for all. As the world strives to achieve Zero Hunger, India's comprehensive and inclusive approach stands as a model of resilience and partnership for a better, nourished future.

23. MODEL YOUTH GRAM SABHA (MYGS): "LOKTANTRA KI PATHSHALA"

Nurturing Democratic Values Among India's Youth

Introduction:

Ministry of Panchayati Raj, in collaboration with the Department of School Education and Literacy and the Ministry of Tribal Affairs, has launched the **Model Youth Gram Sabha (MYGS).** It is a unique initiative designed to cultivate civic consciousness, democratic values, and leadership skills among students.

Objectives of the Model Youth Gram Sabha

1. **Educate Students about the Panchayati Raj System** – Introduce students to the three-tier Panchayati Raj framework established through the 73rd Constitutional Amendment.
2. **Encourage Participation** – Motivate students to engage in Gram Sabhas and local governance processes.
3. **Develop Leadership Skills** – Foster a sense of responsibility and leadership among youth towards strengthening Panchayati Raj Institutions (PRIs).
4. **Promote Understanding of Local Issues** – Provide a platform for students to discuss and analyse real-life governance challenges at the grassroots level.

Vision

The vision of the Model Youth Gram Sabha is to **nurture empowered, responsible, and empathetic young citizens** who understand democracy as both a right and a duty. Its core aims include:

- Fostering **active citizenship** rooted in constitutional and democratic ideals.
- Instilling **values of inclusion, justice, and equity** in social interactions.
- Building essential **life skills** such as communication, cooperation, and decision-making.
- Enhancing **awareness of local governance and the Sustainable Development Goals (SDGs)**.
- Strengthening youth commitment to **national integration and development**.

Empowering Youth Through Experiential Democracy

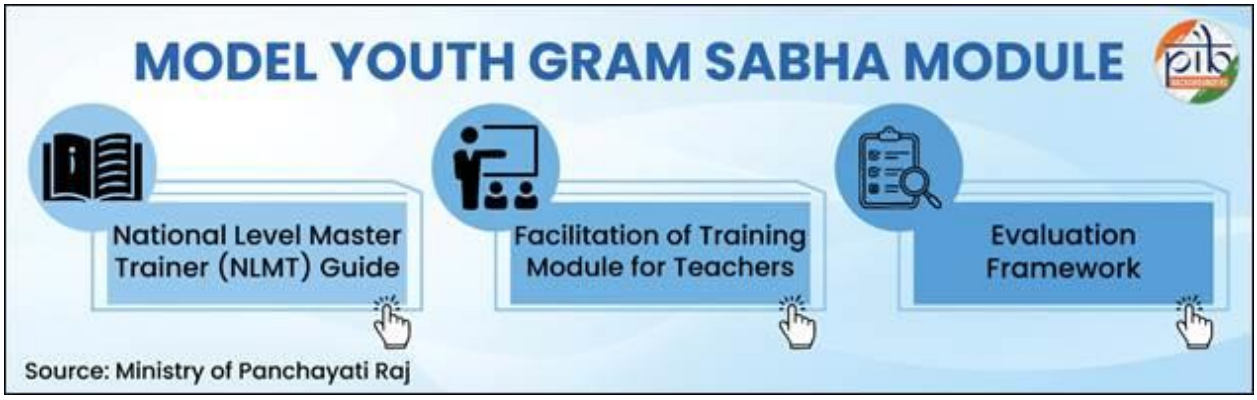
Gram Sabha, as enshrined in **Article 243 of the Constitution**, represents the essence of *direct democracy*. The Model Youth Gram Sabha serves as a **"Loktantra Ki Pathshala"**.

- It serves as a school of democracy, where students learn governance through participation.
- MYGS sessions replicate the processes of actual Gram Sabhas, allowing students to **role-play as Sarpanch, Ward Members, Panchayat Secretaries, and citizens**.
- Students experience firsthand how grassroots institutions deliberate on budgets, welfare schemes, and community issues.
- This **experiential learning approach** transforms civic education from textbook knowledge into practical understanding of democratic decision-making.

The MYGS initiative is deeply aligned with the vision of **NEP 2020**, which emphasizes education that instils **constitutional values, fundamental duties, and civic responsibility**. NEP envisions preparing students who understand their roles in a rapidly changing society, not only as learners but as responsible citizens.

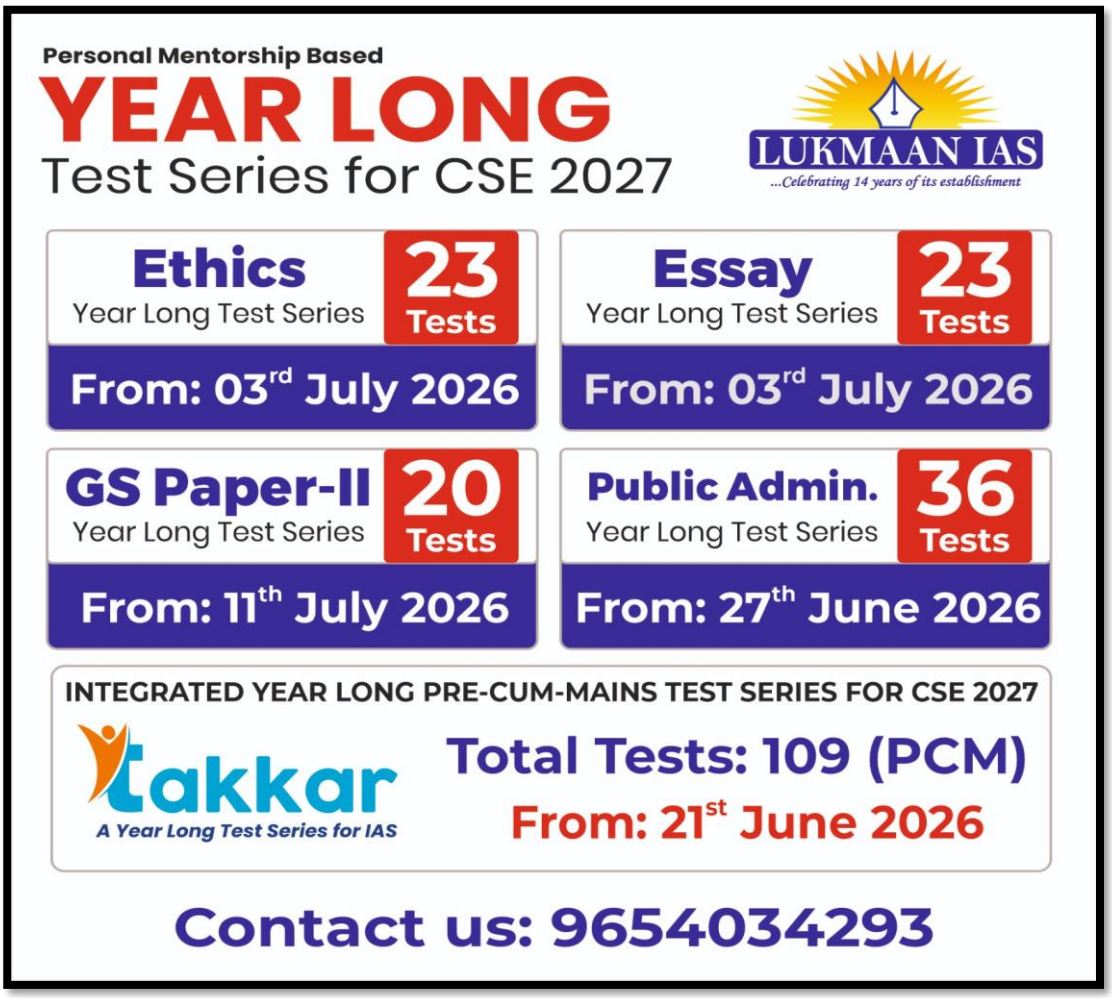
Implementation and Institutional Structure

- To translate this vision into action, the MYGS initiative was piloted across **Jawahar Navodaya Vidyalayas (JNVs)** and **Eklavya Model Residential Schools (EMRSs).**
- The **Model Youth Gram Sabha Module** serves as a comprehensive framework designed to translate the vision of participatory democracy into practice within schools. The module is divided into **three interconnected components**:



- The amount of **Rs. 20,000 per school** will be provided to each participating school as a one-time financial assistant for conducting each mock Gram Sabha. The fund may be utilised in the arrangement of a Sabha, including logistic support and refreshment.
- The Model Youth Gram Sabha initiative is expected to strengthen **Youth Empowerment, Leadership Development, Democratic Literacy, etc,** by linking education with democratic engagement.

CONCLUSION: These outcomes align with India's broader goal of **creating "Sashakt Gram, Sashakt Yuva" — Empowered Villages, Empowered Youth.**



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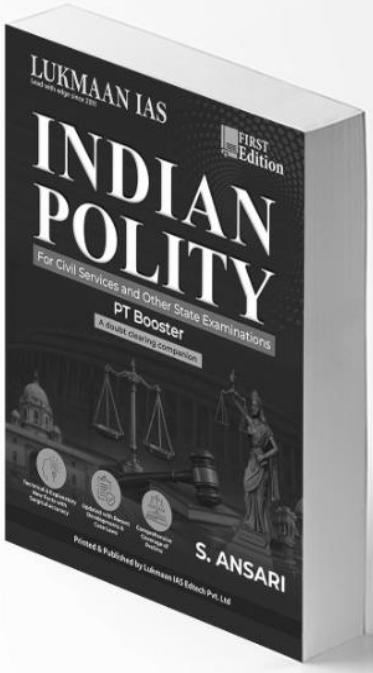

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