

Transforming India with AI

Mains: *GS III – Science and technology*

Why in News?

Recently the artificial intelligence (AI) landscape is expanding in India and projected to grow faster in the future.

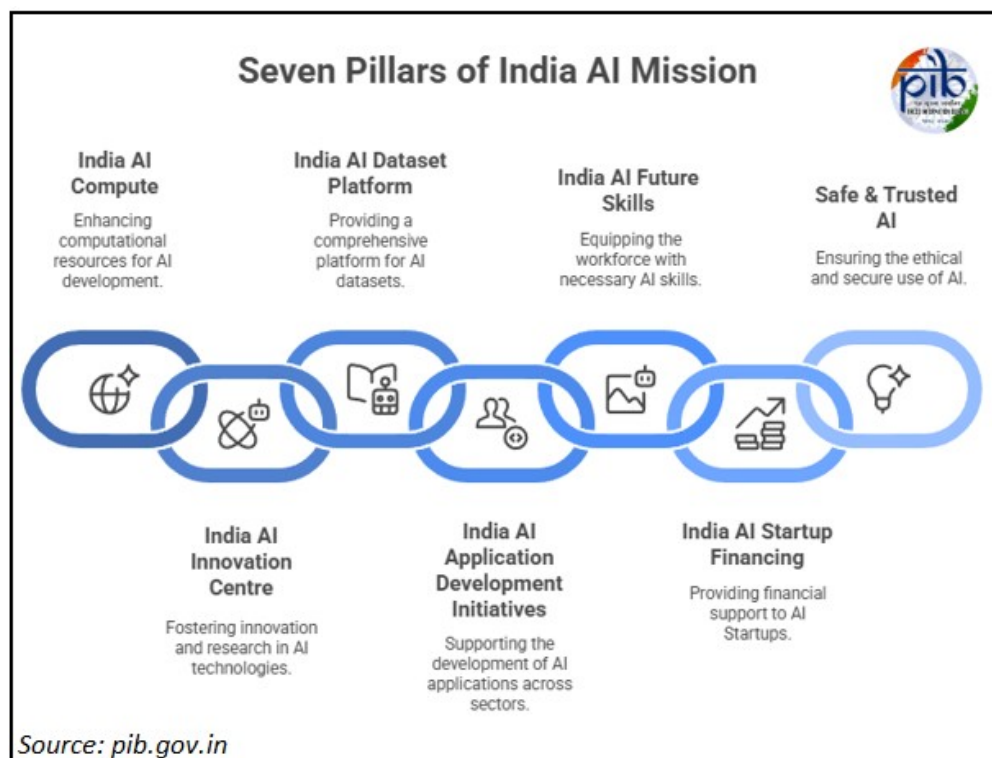
What is the status AI Ecosystem in India at Present?

- **Rapid expansion** – India's technology sector is expanding rapidly, with annual revenues projected to cross USD 280 billion this year.
- **Employment** – Over 6 million people are employed in the tech and AI ecosystem.
- The country hosts 1,800+ Global Capability Centres, including more than 500 focused on AI.
- **Startups with AI** – India has around 1.8 lakh startups, and nearly 89% of new startups launched last year used AI in their products or services.
- On the NASSCOM AI Adoption Index, India scores 2.45 out of 4, showing that 87% of enterprises are actively using AI solutions.
- **Leading sectors** – The sectors with AI adoption include industrial and automotive, consumer goods and retail, banking, financial services and insurance, and healthcare.

Stanford AI Index place India among the top 4 countries in AI skills, capabilities, and policies.

What are the seven pillars of the IndiaAI mission?

- **IndiaAI Compute Pillar** – This pillar provides high-end GPUs at affordable costs.
- Over 38,000 GPUs have been onboarded and these GPUs are available at a subsidized rate of just ₹65 per hour.



***A GPU or Graphics Processing Unit** is a powerful computer chip that helps machines think faster, process images, run AI programs, and handle complex tasks more efficiently than a regular processor.*

- **IndiaAI Application Development Initiative** – This pillar develops AI applications for India-specific challenges.
- Sectors include healthcare, agriculture, climate change, governance, and assistive learning technologies.
- Sector-specific hackathons are organized with ministries and institutions.
 - **For example**, the CyberGuard AI Hackathon helps develop AI solutions for cybersecurity.
- **AIKosh (Dataset Platform)** – AIKosh develops large datasets for training AI models.
- It integrates data from government and non-government sources.
- The platform has over 3,000 datasets and 243 AI models across 20 sectors.
- These resources help developers focus on AI solutions instead of building basic modules.
- **IndiaAI Foundation Models** – This pillar develops India’s own Large Multimodal Models using Indian data and languages.
- It ensures sovereign capability and global competitiveness in generative AI.
- **IndiaAI FutureSkills** – This pillar builds AI-skilled professionals.
- Support is provided to 500 PhD fellows, 5,000 postgraduates, and 8,000 undergraduates.
- **IndiaAI Startup Financing** – This pillar provides financial support to AI startups.
- The IndiaAI Startups Global program launched in March 2025.
- It helps 10 Indian startups expand into the European market in collaboration with Station F and HEC Paris.
- **Safe and Trusted AI** – This pillar ensures responsible AI adoption with strong

governance.

- They focus on machine unlearning, bias mitigation, privacy-preserving ML, explainability, auditing, and governance testing.

What are the other Key Government Initiatives and Policy Push?

- **Centres of Excellence for AI** - To encourage research-driven innovation, the government has set up three Centres of Excellence (CoEs) in key sectors such as Healthcare, Agriculture, and Sustainable Cities.
- These centres are designed to serve as collaborative spaces where academia, industry, and government institutions come together to develop scalable AI solutions.
- Alongside, five National Centres of Excellence for Skilling have been established to prepare the youth with industry-relevant AI skills, building a future-ready workforce.
- **AI Competency Framework** - This framework provides structured training for government officials, helping them acquire essential AI skills and apply them in policymaking and governance.
- Designed in line with global benchmarks, it ensures that India's public sector remains informed, agile, and prepared for the AI-driven future.
- **IndiaAI Startups Global Acceleration Programme** - Launched in partnership with Station F in Paris and HEC Paris, this programme supports ten promising Indian AI startups by giving them access to global expertise, networks, and resources.
- It aims to help Indian innovators compete at an international level and expand their global footprint.
- **Sarvam AI** - It is a Bengaluru-based company, translating advanced AI research into practical governance solutions.
- In partnership with the Unique Identification Authority of India (UIDAI), it is using generative AI to make Aadhaar services smarter and more secure.
- **Bhashini** - It is an AI-powered platform that breaks language barriers by offering translation and speech tools in multiple Indian languages.
- It helps citizens access digital services easily, even if they are not comfortable reading or writing.
- **BharatGen AI** - Launched on 2 June 2025 at the BharatGen Summit, BharatGen AI is the first government-funded, homegrown multimodal large language model.
- It supports 22 Indian languages and integrates text, speech, and image understanding.
- Built using domestic datasets, BharatGen captures India's cultural diversity and provides a common platform for startups and researchers to create AI solutions tailored to Indian needs.

What is India AI Impact Summit 2026?

- **Summit** - India will host the AI Impact Summit in February 2026.
- The summit will showcase India's AI capabilities and encourage innovation across sectors.
- **Initiatives** - The key flagship initiatives are
- **AI Pitch Fest (UDAAN)** - It is a platform for AI startups from around the world with a focus on women leaders and differently-abled changemakers.
- **Innovation challenges** - Global innovation challenges for youth, women, and other

participants is an initiative to promote AI-driven solutions that address real world public challenges across sectors.

- **Research symposium** - A gathering to showcase latest AI research and bring together leading researchers from India, the Global South, and the wider international community to present their work, exchange methods, and evidence and encourage collaborations.
- **AI Expo** - This Expo will focus on Responsible Intelligence and will feature 300+ exhibitors from India and 30+ countries.
- **AI data labs** - Another major focus was the AI Data Labs, with thirty labs launched pan-India, forming a 570-lab network.
- The first 27 labs were set up in partnership with the National Institute of Electronics and Information Technology (NIELIT).
- These labs provide foundational AI and data training under the FutureSkills initiative of the IndiaAI Mission.
- **Fellowships** - The IndiaAI Fellowship Program and Portal was also expanded during the event to support 13,500 scholars.
- This includes 8,000 undergraduates, 5,000 postgraduates, and 500 PhD researchers across all disciplines.
- Fellowships are now open to students from fields such as engineering, medicine, law, commerce, business, and liberal arts.

What are some key areas where AI is improving everyday life?

- **Healthcare** - It helps doctors detect diseases early, analyse medical scans, and recommend personalised treatments.
- Telemedicine platforms powered by AI connect patients in rural areas with specialists in top hospitals, saving time and cost while improving care quality.
- **Agriculture** - It predicts weather, detects pest attacks, and suggests optimal times for irrigation and sowing.
- The Ministry of Agriculture and Farmers Welfare is using AI through initiatives like Kisan e-Mitra, a virtual assistant that helps farmers access government schemes such as PM Kisan Samman Nidhi.
- The National Pest Surveillance System and Crop Health Monitoring combine satellite data, weather inputs, and soil analysis to provide real-time advice that improves yields and income security.
- **Education and Skilling** - AI is being integrated into India's education system to make learning more inclusive, engaging, and future-ready.
- Under the National Education Policy (NEP) 2020, the Central Board of Secondary Education (CBSE) offers a 15-hour AI skill module from Class VI and an optional AI subject from Class IX to XII.
- The DIKSHA digital learning platform by NCERT uses AI tools such as keyword search in videos and read-aloud features to enhance accessibility, especially for visually impaired learners.
- In addition, the National e-Governance Division (NeGD) under MeitY, in collaboration with its partners, has implemented YUVAi- Youth for Unnati and Vikas with AI, a national programme aimed at enabling students from Classes 8 to 12 with AI and social skills in an inclusive manner.

- The programme provides a platform for students to learn and apply AI skills across eight thematic areas:
 - Krishi
 - Aarogya
 - Shiksha
 - Paryavaran
 - Parivahan
 - Grameen Vikas
 - Smart Cities
 - Vidhi aur Nyaay
- Empowering them to develop AI-driven solutions for real-world challenges.
- **Governance and Justice Delivery** - AI is reshaping governance and public service delivery.
- As per the Supreme Court of India, under e-Courts Project Phase III, modern technologies are being integrated to make the justice system more efficient and accessible.
- Artificial Intelligence and its subsets such as Machine Learning, Optical Character Recognition, and Natural Language Processing are being used in translation, prediction, administrative efficiency, automated filing, intelligent scheduling, and communication through chatbots.
- AI Translation Committees in High Courts are overseeing the translation of Supreme Court and High Court judgments into vernacular languages.
- Digital legal platforms such as e-HCR and e-ILR now provide citizens online access to judgments in multiple regional languages, making justice delivery more transparent and inclusive.
- **Weather Forecasting and Climate Services** - AI is strengthening India's ability to predict and respond to natural events.
- The India Meteorological Department uses AI-based models to forecast rainfall, fog, lightning, and fire.
- The Advanced Dvorak Technique helps estimate cyclone intensity, while MausamGPT, an upcoming AI chatbot, will offer real-time weather and climate advice to farmers and disaster management agencies.

AI and Employment

- **NASSCOM's report** – “Advancing India’s AI Skills” (August 2024),
- India’s AI talent base is expected to grow from about 6 to 6.5 lakh professionals to more than 12.5 lakh by 2027, at a compound annual growth rate of 15%.
- AI is driving demand in areas such as data science, data curation, AI engineering, and analytics.
- **Skill development** – As of August 2025, around 8.65 lakh candidates have enrolled or trained in various emerging technology courses, including 3.20 lakh in AI and Big Data Analytics.
- **Preparing the workforce for the future** – The Ministry of Electronics and Information Technology, MeitY, has launched FutureSkills PRIME, a national programme focused on reskilling and upskilling IT professionals in 10 new and emerging technologies, including AI
- As of August 2025, more than 18.56 lakh candidates had signed up on the FutureSkills PRIME portal, and over 3.37 lakh had successfully completed their courses.

What are the recently Proposed Implementation Roadmap?

- **Phase 1 (2025-2026)** – Drafting of the mission charter with clear goals, timelines and measurable outcomes.
- Stakeholders from government, industry, academia and civil society will be engaged to set priorities and define objectives.
- **Phase 2 (2026-2027)** – Establishment of cross-sectoral governance structures, leadership roles and an implementation blueprint.
- This phase will also focus on legal, regulatory and digital infrastructure readiness, while promoting domestic innovation and public-private partnerships.
- **Phase 3 (2027-2029)** – Pilot projects will be rolled out in high-readiness sectors to test solutions in real-world conditions.
- Accessibility and last-mile adoption will be prioritised, supported by strong monitoring and evaluation frameworks.
- **Phase 4 (2029 onwards)** – Proven solutions will be scaled across states and cities.
- Local adaptation will ensure regional relevance and worker mobility across sectors.
- The phase will aim to institutionalise the mission and sustain its benefits at scale.

What lies ahead?

- India’s journey in Artificial Intelligence reflects a clear vision and decisive action.
- From expanding computing infrastructure to fostering homegrown models and supporting startups, the country is creating a robust AI ecosystem that benefits citizens and drives innovation.
- These efforts lay a strong foundation for India to emerge as a global AI leader while advancing the vision of Viksit Bharat 2047.

Reference

[PIB| Transforming India with AI](#)



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