



Research Paper

# INDIA'S AI LANDSCAPE An Overview

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#### RESEARCH PAPER

# **INDIA'S AI LANDSCAPE**An Overview

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# List of Abbreviations

Abbreviation	Full Form	
AI	Artificial Intelligence	
AISI	Artificial Intelligence Safety Institute	
AI CoE	Artificial Intelligence Centre of Excellence	
AI4Bharat	Artificial Intelligence for Bharat	
Atmanirbhar	Self-reliant (used in context: Atmanirbhar AI)	
CSO	Civil Society Organisation	
CCI	Competition Commission of India	
СоЕ	Centre of Excellence	
DPI	Digital Public Infrastructure	
DPDP Act / DPDPA	Digital Personal Data Protection Act, 2023	
DoT	Department of Telecommunications	
EU	European Union	
FY	Financial Year	
GCC	Global Capability Centres	
GPAI	Global Partnership on Artificial Intelligence	
GoI	Government of India	
GPU	Graphics Processing Unit	
ICT	Information and Communication Technology	
IISc	Indian Institute of Science	
IIIT	Indian Institute of Information Technology	
IIT	Indian Institute of Technology	
IT Act	Information Technology Act, 2000	
IT Rules	Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021	
KITE	Kerala Infrastructure and Technology for Education	
LLM	Large Language Model	
ML	Machine Learning	

MeitY / MEITY	Ministry of Electronics and Information Technology	
MoU	Memorandum of Understanding	
MSME	Micro, Small and Medium Enterprises	
MSDE	Ministry of Skill Development and Entrepreneurship	
NAIRP	National Artificial Intelligence Resource Platform	
N-AIM / NAIIM	National Artificial Intelligence Mission / IndiaAI Mission	
NBFC	Non-Banking Financial Company	
NITI Aayog	National Institution for Transforming India Aayog	
NLP	Natural Language Processing	
PM-EAC	Prime Minister's Economic Advisory Council	
РМО	Prime Minister's Office	
PSA Principal Scientific Adviser		
PSO Payment System Operator		
<b>R&amp;D</b> Research and Development		
RBI	Reserve Bank of India	
SEBI	Securities and Exchange Board of India	
SME	Small and Medium Enterprise	
TNAIM	Tamil Nadu Artificial Intelligence Mission	
UNESCO	United Nations Educational, Scientific and Cultural Organisation	
UPI	Unified Payments Interface	
WEF	World Economic Forum	
WTCA	WTCA World Trade Centres Association	

# 1. Introduction

Artificial Intelligence represents a paradigm shift in technological evolution, not merely as a tool for problem-solving but as an agent of systemic transformation. By embedding itself into the core of decision-making processes and operational paradigms, AI is redefining the interface between technology and society, industry, and governance. Its ability to process vast datasets, uncover patterns, and generate insights in real-time holds unprecedented potential to address complex challenges across sectors, from improving healthcare outcomes and optimising supply chains to enabling precision agriculture and transforming education. Yet, the very characteristics that make AI transformative i.e. its autonomy, scalability, and adaptability, also pose unique challenges for governance, demanding nuanced regulatory frameworks that balance innovation with accountability.

As India prepares to host the **AI Impact Summit in 2026**<sup>1</sup>, AI has naturally taken centre stage in national and policy discourse. The Summit underscores India's growing role in shaping global conversations on responsible and inclusive AI, and highlights the urgency of establishing governance frameworks capable of steering this transformative technology. Yet the same characteristics that make AI powerful, autonomy, scalability, and adaptability, also create complex governance challenges. They necessitate regulatory approaches that are flexible, context-sensitive, and capable of balancing innovation with accountability.

Globally, jurisdictions are adopting varied approaches to AI regulation, reflecting diverse priorities and governance philosophies. The European Union (EU) has established itself as a pioneer with its comprehensive Artificial Intelligence Act, which employs a risk-based categorisation to govern AI systems. This framework seeks to balance innovation with safeguards for fundamental rights, democratic values, and environmental sustainability.<sup>2</sup> China, on the other hand, has opted for technology-specific rules that address particular applications of AI<sup>3</sup>, while the United States is embracing "light-touch" regulatory strategies.

In this global landscape, India occupies a unique position. As a growing digital economy with a strong emphasis on innovation, India's AI strategy prioritises adoption and scalability while recognising the need for balancing innovation with regulation. Key initiatives, such as the *IndiaAI Mission*<sup>4</sup>, underline the government's focus on expanding AI's reach through funding, capacity-building, and fostering an ecosystem of collaboration between academia, industry, and civil society. India's regulatory posture remains in its early stages, reflected in the recently released AI Governance Guidelines<sup>5</sup>, which emphasise a pro-innovation, consultative approach rather than prescriptive rulemaking.

<sup>1</sup> https://impact.indiaai.gov.in/

<sup>&</sup>lt;sup>2</sup> EU AI Act 2024 https://artificialintelligenceact.eu/

<sup>&</sup>lt;sup>3</sup> Navigating the complexities of AI regulation in China <a href="https://www.reedsmith.com/en/perspectives/2024/08/navigating-the-complexities-of-ai-regulation-in-china">https://www.reedsmith.com/en/perspectives/2024/08/navigating-the-complexities-of-ai-regulation-in-china</a>

<sup>4</sup> https://indiaai.gov.in/

<sup>&</sup>lt;sup>5</sup> India AI Governance Guidelines

 $<sup>\</sup>underline{https://static.pib.gov.in/WriteReadData/specificdocs/documents/2025/nov/doc2025115685601.pdf}$ 

Despite these efforts, India's regulatory approach remains in its formative stages, characterised by exploratory measures rather than prescriptive frameworks. This reflects India's commitment to a "pro-innovation" ethos, where the focus lies on creating an enabling environment for AI growth while addressing risks through adaptable and inclusive policies. With an adoption rate of 30%<sup>6</sup>, surpassing the global average of 26%, India's proactive embrace of AI signals its recognition of the technology as a strategic asset for economic growth and societal empowerment. This high adoption rate is emblematic of India's ability to leverage its vast and diverse data ecosystem, its expansive digital infrastructure, and an innovative technology sector. AI is increasingly being seen as an enabler for addressing systemic challenges, such as improving access to healthcare in rural areas, enhancing the efficiency of public service delivery, and driving financial inclusion.

However, this rapid adoption also highlights critical regulatory and ethical dimensions that demand attention. The deployment of AI in sensitive sectors, such as healthcare, law enforcement, and education, raises questions about the fairness and transparency of decision-making processes, the risk of biases being perpetuated or amplified, and the implications for individual rights and societal equity. For instance, while AI has the potential to democratise access to services, unregulated deployments could lead to digital exclusion or reinforce pre-existing disparities. Public accountability becomes particularly salient as AI increasingly mediates decisions that were traditionally the domain of human judgment. Ensuring that AI systems are explainable, auditable, and aligned with societal values is crucial for maintaining trust in their outcomes. Policymakers in India face the dual challenge of fostering an ecosystem that accelerates AI innovation while creating governance frameworks that address risks such as misinformation, surveillance misuse, and algorithmic opacity.

Furthermore, India's approach to AI regulation must contend with its unique demographic, cultural, and economic context. Unlike regions such as the European Union, where regulatory frameworks like the AI Act are premised on a mature digital economy and strong institutional capacity, India's regulatory strategy must accommodate a broader spectrum of technological readiness and societal needs. Balancing the interests of an innovation-driven private sector with the ethical concerns of civil society will be critical for shaping a regulatory environment that promotes inclusive and responsible AI adoption.

# 1.1 Objectives and Scope of the Series

This paper marks the inaugural installment in a series dedicated to exploring the evolving AI regulatory ecosystems in India and the EU. Through a comparative lens, the series aims to provide a nuanced understanding of the frameworks, stakeholders, and strategies that are shaping AI governance in these two distinct regions. By focusing on India in this first paper, the series lays the groundwork for an informed dialogue on the potential for harmonisation, innovation, and leadership in the global AI landscape.

<sup>&</sup>lt;sup>6</sup> Boston Consulting Group (BCG)'s Report on 'Where's the Value in AI?' (2024) https://cio.economictimes.indiatimes.com/news/artificial-intelligence/india-is-leading-in-ai-adoption-at-30-surpassing-global-average-of-26-bcg-report

The key objectives of this paper are as follows:

#### 1.1.1 Mapping the AI Ecosystem

The paper seeks to systematically identify the key stakeholders driving AI adoption and governance in India. This includes policymakers crafting the regulatory environment, startups and industry leaders deploying AI across sectors, academic and research institutions pushing the boundaries of AI innovation, and civil society organisations advocating for ethical and equitable AI usage. Understanding the interplay between these actors is critical for comprehending the dynamics of India's AI ecosystem.

#### 1.1.2 Regulatory and Policy Developments

A thorough analysis of India's AI regulatory landscape is central to this paper. By examining existing legislative and policy developments, such as the Digital Personal Data Protection Act and other emerging initiatives, the paper aims to evaluate the country's preparedness to address the challenges posed by rapid AI adoption. It will also delve into the evolving discourse on policy considerations that balance innovation with accountability, addressing issues such as data governance, AI ethics, and algorithmic transparency.

#### 1.1.3 Governmental Focus

This paper explores the Indian government's strategic priorities in fostering AI innovation. It examines key initiatives under the IndiaAI Mission, focusing on funding mechanisms, public-private partnerships, and capacity-building efforts aimed at bolstering India's position as a global AI hub. These efforts highlight the government's dual mandate of fostering economic growth and addressing societal needs through AI.

#### 1.1.4 Challenges and Opportunities

India's rapid AI adoption, while transformative, is not without its challenges. This paper identifies regulatory gaps and infrastructural hurdles that could impede the country's ability to fully harness AI's potential. Simultaneously, it underscores the opportunities that exist for India to establish itself as a leader in AI governance and innovation. These include leveraging its vast data ecosystem, promoting inclusive AI development, and crafting regulatory/governance frameworks that can serve as a model for other emerging economies.

#### 1.1.5 India and the Global AI regulatory Landscape:

This paper examines India's AI governance strategy in the context of evolving global regulatory approaches. As countries craft responses shaped by their political systems and developmental priorities, from the European Union's binding legislative framework to China's sectoral, risk-based model, and the more flexible, voluntary approaches of the U.S. and the U.K., India has adopted a distinctly pragmatic path. Prioritising innovation, contextual relevance, and public interest, India is investing in foundational infrastructure, exemplified by the ₹2,000 crore IndiaAI Mission, rather than enacting overarching regulations prematurely.

By situating India's approach within this broader international landscape, the paper evaluates how it aligns with or diverges from global trends, and what this means for the future of responsible and inclusive AI governance.

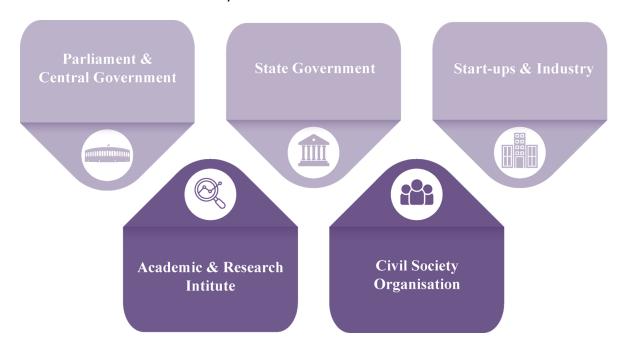
## 1.2 Significance of the Study

This paper will aim to provide a comprehensive understanding of India's approach to AI adoption and regulation, situating it within the broader global context. By offering actionable insights for policymakers, industry stakeholders, and researchers, the paper seeks to contribute to a more cohesive and informed discourse on responsible AI development.

In exploring the Indian AI ecosystem, this study sets the stage for subsequent analyses in the series, paving the way for comparative evaluations with the EU's regulatory model. Through this endeavor, it aspires to catalyse dialogue on harmonised and effective AI governance frameworks that reflect regional priorities while addressing global challenges.

# 2. Mapping the AI Ecosystem: Understanding the Key Stakeholders in India's AI Journey

The AI ecosystem in India is an intricate web of interdependent actors contributing to the development, deployment, and governance of AI. To fully comprehend this ecosystem, it is essential to systematically map its stakeholders, their roles, and the dynamic interactions that drive AI adoption and regulation. From policymakers shaping the regulatory framework to grassroots organisations advocating for inclusivity, each stakeholder plays a pivotal role in India's AI landscape. The following section provides an in-depth analysis of these actors and their contributions to the AI ecosystem.



### 2.1 Parliament and Central Government Stakeholders

#### 2.1.1 Parliamentarians:

Parliamentarians hold a unique position in this landscape, acting as key stakeholders in shaping legislative and policy frameworks that govern AI development and deployment. Over the past two years, there has been a notable increase in parliamentary interventions addressing various dimensions of AI governance. These interventions encompass questions raised in the Lok Sabha and Rajya Sabha on various AI-related topics, including deepfakes<sup>7</sup>, the use of AI in public service delivery<sup>8</sup>, risks associated with Generative AI<sup>9</sup>, and the

<sup>&</sup>lt;sup>7</sup> Government of India <a href="https://sansad.in/getFile/annex/260/AU2314.pdf?source=pqars">https://sansad.in/getFile/annex/260/AU2314.pdf?source=pqars</a>

<sup>&</sup>lt;sup>8</sup> Government of India <a href="https://rsdebate.nic.in/bitstream/123456789/716678/1/PQ">https://rsdebate.nic.in/bitstream/123456789/716678/1/PQ</a> 253 16032021 U2382 p415 p415.pdf

<sup>&</sup>lt;sup>9</sup> Government of India <a href="https://sansad.in/getFile/loksabhaquestions/annex/1715/AU869.pdf?source=pqals">https://sansad.in/getFile/loksabhaquestions/annex/1715/AU869.pdf?source=pqals</a>

importance of ensuring the ethical development and deployment of AI technologies. They also address concerns such as job displacement<sup>10</sup>, AI upskilling<sup>11</sup>, data protection, and the broader socio-economic implications of AI applications<sup>12</sup>. Additionally, individual Members of Parliament (MPs) have shown proactive engagement by introducing Private Member Bills on AI-related themes. These legislative proposals demonstrate a growing recognition of concerns such as preventing and criminalising the creation, distribution, and use of deepfake content<sup>13</sup>, regulating and overseeing the deployment of AI<sup>14</sup>, ensuring adequate training and upskilling opportunities for employees impacted by AI adoption<sup>15</sup>, and safeguarding employee privacy rights, including data security and the confidential handling of personal information.

Another significant development in this context is the Parliamentary Standing Committee on Information Technology, which has identified "*The Impact of Artificial Intelligence and related issues*" as a theme for detailed study in 2025-26.<sup>16</sup> The committee's focus on AI and related technologies presents a unique opportunity to explore AI's potential across various domains. Their deliberations are expected to offer insights into critical areas such as the regulation of AI-driven decision-making systems, the impact of employment, and the ethical implications of its widespread adoption. This comprehensive examination by the committee can lead to actionable recommendations for policy refinement, sectoral guidelines, and legislative oversight.

#### 2.1.2 NITI Aayog:

NITI Aayog, India's premier policy think tank, has been instrumental in steering the nation's AI agenda through its strategic initiatives and policy recommendations. Building on the 2018 report by the Task Force on Artificial Intelligence for India's Economic Transformation, NITI Aayog released the *National Strategy on AI*<sup>17</sup> in the same year. This comprehensive strategy, underpinned by the philosophy of "AI for All," envisions leveraging AI for sustainable and inclusive growth. The strategy prioritises scalable AI applications in critical areas such as agriculture, healthcare, education, smart cities, and infrastructure, with the ultimate aim of addressing socio-economic disparities.

The Task Force report also laid the groundwork for AI adoption by identifying ten key sectors for AI application, including manufacturing, fintech, agriculture, healthcare, assistive technologies for the differently abled, national security, environment, public utility services, retail, and education. It recommended the establishment of a National Artificial Intelligence Mission (N-AIM), proposing a ₹1,200 crore investment over five years to fund centers of

<sup>&</sup>lt;sup>10</sup> Government of India https://rsdebate.nic.in/bitstream/123456789/723470/1/PQ 255 17122021 U2324 p228 p229.pdf

<sup>&</sup>lt;sup>11</sup> Government of India <a href="https://sansad.in/getFile/annex/263/AU859.pdf?source=pqars">https://sansad.in/getFile/annex/263/AU859.pdf?source=pqars</a>

<sup>&</sup>lt;sup>12</sup> Government of India <a href="https://sansad.in/getFile/annex/266/AU1335\_xus5hb.pdf?source=pqars">https://sansad.in/getFile/annex/266/AU1335\_xus5hb.pdf?source=pqars</a>

<sup>&</sup>lt;sup>13</sup> Private Member Bill moved on AI <a href="https://www.deccanherald.com/india/private-members-bills-on-ai-to-be-tabled-in-rajya-sabha-3123018">https://www.deccanherald.com/india/private-members-bills-on-ai-to-be-tabled-in-rajya-sabha-3123018</a>

<sup>&</sup>lt;sup>14</sup> Private Member Bill to regulate AI <a href="https://www.hindustantimes.com/india-news/pvt-member-s-bill-to-regulate-ai-introduced-in-rajya-sabha-101722064275752.html">https://www.hindustantimes.com/india-news/pvt-member-s-bill-to-regulate-ai-introduced-in-rajya-sabha-101722064275752.html</a>

<sup>&</sup>lt;sup>15</sup> Private Member Bill on Rights of workers in view of AI <a href="https://www.business-standard.com/india-news/pvt-member-s-bill-listed-in-rs-to-ensure-rights-of-workers-in-view-of-ai-124072800407">https://www.business-standard.com/india-news/pvt-member-s-bill-listed-in-rs-to-ensure-rights-of-workers-in-view-of-ai-124072800407</a> 1.html

<sup>16</sup> https://prsindia.org/parliamentary-committees/information-technology

<sup>&</sup>lt;sup>17</sup> National Strategy for Artificial Intelligence-AI for All (2018) <a href="https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf">https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf</a>

excellence, AI testbeds, and a data aggregation hub. However, significant challenges, such as infrastructural limitations, data governance issues, and low consumer awareness, were highlighted as barriers to widespread AI adoption.

In 2021, NITI Aayog operationalised its vision with the second part of its *Responsible AI* approach document, <sup>18</sup> which focuses on embedding ethical principles into AI development and deployment. The report outlines seven guiding principles:

- Safety and Reliability: Ensuring secure and reliable AI applications with robust safeguards.
- Equality: Enabling fairness in decision-making processes through AI systems.
- *Inclusivity and Nondiscrimination:* Mitigating identity-based exclusions and social divisions.
- *Privacy and Security:* Strengthening data protection mechanisms and restricting unauthorised access.
- *Transparency:* Advocating for open design and operation to enhance scrutiny and accountability.
- Accountability: Holding all AI stakeholders responsible for their contributions and decisions.
- Human Values: Reinforcing AI's alignment with positive societal and ethical values.

To implement these principles, NITI Aayog advocated for a risk-based regulatory framework. This approach tailors regulatory stringency to potential risks, enabling controlled AI deployments through policy sandboxes and adaptive legislative changes as AI technologies evolve.

NITI Aayog has also recently released a series of reports that underscore the economic implications of AI. These include "AI for Viksit Bharat: The Opportunity for Accelerated Economic Growth"<sup>19</sup> which examines AI's role in driving national development; AI for Inclusive Societal Development<sup>20</sup>, a first-of-its-kind study on how AI and frontier technologies can transform the lives and livelihoods of India's 490 million informal workers; and a roadmap for job creation in the AI economy, outlining how India can build a future-ready workforce as AI adoption accelerates.

Complementing these efforts, The NITI Frontier Tech Hub<sup>21</sup> was established to help India harness emerging technologies for inclusive growth and national security, serving as a catalyst for innovation and future readiness in line with the Viksit Bharat 2047 vision. Its mandate is to bring together experts, evaluate the opportunities and risks of frontier technologies such as AI and quantum computing, and develop strategies for their effective deployment. The Hub

<sup>&</sup>lt;sup>18</sup> NITI Aayog's report on Responsible AI-Part 2 <a href="https://www.niti.gov.in/sites/default/files/2021-08/Part2-Responsible-AI-12082021.pdf">https://www.niti.gov.in/sites/default/files/2021-08/Part2-Responsible-AI-12082021.pdf</a>

<sup>&</sup>lt;sup>19</sup> AI for Viksit Bharat: The Opportunity for Accelerated Economic Growth <a href="https://niti.gov.in/sites/default/files/2025-09/AI-for-Viksit-Bharat-the-opportunity-for-accelerated-economic-growth.pdf">https://niti.gov.in/sites/default/files/2025-09/AI-for-Viksit-Bharat-the-opportunity-for-accelerated-economic-growth.pdf</a>

<sup>&</sup>lt;sup>20</sup>AI for Inclusive Societal Development <a href="https://niti.gov.in/sites/default/files/2025-10/Roadmap">https://niti.gov.in/sites/default/files/2025-10/Roadmap</a> On AI for Inclusive Societal Development.pdf

<sup>21</sup> https://niti.gov.in/frontier-tech-hub

also aims to position India as a global leader in cutting-edge technologies and evolve into a true "frontier tech nation." It is currently headed by Ms Debjani Ghosh.

#### 2.1.3 Ministry of Electronics and Information Technology (MEITY):

The Ministry of Electronics and Information Technology (MeitY) has emerged as the central force shaping India's AI governance framework, driving efforts that balance innovation with safety, strengthen data governance, and address emerging risks such as misinformation. Its initiatives reflect a coherent, forward-looking approach that prioritises both ethical AI deployment and India's broader digital ambitions.

Over the years, MEITY released the *Draft National Data Governance Framework Policy*<sup>22</sup>, a policy aimed to facilitate the safe and secure utilisation of non-personal and anonymised data from government and private entities, fostering innovation and research; they also released the *AI Advisories*, addressing AI-generated misinformation, recognising its growing risks. The advisory required intermediaries to ensure compliance with IT rules regarding AI-powered misinformation, including deepfakes. It mandated intermediaries to communicate prohibited content clearly under Rule 3(1)(b) of the IT Rules, 2021, to users during registration and through periodic reminders. It also emphasised the legal consequences of violations under the IT Act, 2000, and the Indian Penal Code, creating accountability for both intermediaries and users.

Building on this, a subsequent advisory on March 1, 2024, required intermediaries and platforms to label AI-generated or under-trial models as unreliable, marking them with unique metadata or identifiers. This aimed to enhance transparency, ensuring users were informed of the potential risks associated with AI-generated content. Initially, this advisory mandated prior government approval for deploying such models, but it was revised on March 15, 2024.<sup>23</sup> The updated advisory removed the requirement for mandatory approval while expanding due diligence obligations to all AI platforms and intermediaries. Key measures, such as labeling AI-generated content, providing user consent mechanisms, and emphasising compliance with the *Information Technology Act, 2000* and the *Intermediary Guidelines, 2021*, were retained.

The recently released India AI Governance Guidelines mark a significant milestone in MeitY's leadership, establishing a flexible, innovation-friendly governance model rooted in the principle that India must encourage AI adoption while safeguarding individuals and society from harm. These Guidelines were developed through an iterative, multi-stakeholder process led by MeitY, guided by the Principal Scientific Adviser, and informed by public consultations and global best practices.<sup>24</sup> They emphasise agility, proportionality, and trust, recognising that effective AI governance requires not only regulation but also education, infrastructure, diplomacy, and institutional capacity. Adopting key principles from the RBI's FREE-AI Committee Report, the Guidelines prioritise responsible innovation over restrictive regulation and endorse leveraging existing legal frameworks, such as those governing data protection,

<sup>&</sup>lt;sup>22</sup> National Data Governance Framework Policy <a href="https://www.meity.gov.in/writereaddata/files/National-Data-Governance-Framework-Policy.pdf">https://www.meity.gov.in/writereaddata/files/National-Data-Governance-Framework-Policy.pdf</a>

<sup>&</sup>lt;sup>23</sup> MEITY's Advisory on AI (2024) https://www.meity.gov.in/writereaddata/files/Advisory%2015March%202024.pdf

<sup>24</sup> PIB https://www.pib.gov.in/PressReleasePage.aspx?PRID=2186639

cybersecurity, and content regulation, rather than creating an entirely new legislative structure. This pragmatic "regulatory adaptation over overhaul" approach aligns with the understanding that sector-specific, context-aware governance is essential for India's digital ecosystem.<sup>25</sup>

On copyright and data use, the Guidelines take a balanced stance, recommending targeted amendments to support innovation, particularly in areas like Text and Data Mining, while protecting the rights of creators. <sup>26</sup> Earlier drafts risked conflating AI training with automatic copyright infringement, but the final report reflects a more nuanced understanding consistent with the submissions calling for an innovation-friendly, legally sound approach. On AI system liability, the Guidelines acknowledge the need for amendments to the IT Act to clarify obligations, though further clarity is expected through continued consultations. The report also underscores the importance of soft-law tools—such as voluntary transparency measures, model cards, and public accountability reports—arguing that these mechanisms encourage responsible innovation without imposing heavy compliance burdens and can eventually evolve into baseline standards as the ecosystem matures.

To ensure long-term coherence and coordination in AI governance, the Guidelines propose the creation of an **AI Governance Group (AIGG)** supported by a **Technology and Policy Expert Committee (TPEC)**. This governance structure reflects the need for expert-led oversight and cross-ministerial coordination. While the AIGG would function as India's central authority for AI governance, the TPEC would provide specialised technical guidance on emerging risks, global norms, and implementation pathways, ensuring that India's AI policymaking remains agile, consistent, and future-ready.

In addition to the above, MeitY has also advanced the discourse on AI safety and regulatory frameworks. On October 7, 2024, the government initiated a consultation on establishing *India's AI Safety Institute*<sup>27</sup> to address risks posed by transformative AI models. Drawing inspiration from global trends, this initiative underscores India's commitment to aligning AI governance with international best practices while prioritising localised solutions. Further, in July 2025, MeitY issued an RFP to set up the IndiaAI Safety Institute, seeking partners to support its mandate of strengthening indigenous research and development for the safe, trusted, and responsible development, deployment, and use of AI in the country.<sup>28</sup>

They are also the nodal ministry, organising the AI Impact Summit 2026.

https://exmachina.in/12/11/2025/ai-governance-guidelines/

<sup>&</sup>lt;sup>25</sup> PIB https://www.pib.gov.in/PressReleasePage.aspx?PRID=2186639

<sup>&</sup>lt;sup>26</sup> AI Governance Guidelines, Rahul Matthan,

<sup>&</sup>lt;sup>27</sup> MEITY's consultation on India's AI Safety Institute <a href="https://indiaai.gov.in/news/meity-hosts-consultation-for-establishing-india-ai-safety-institute-under-indiaai-mission-s-safe-and-trusted-pillar">https://indiaai.gov.in/news/meity-hosts-consultation-for-establishing-india-ai-safety-institute-under-indiaai-mission-s-safe-and-trusted-pillar</a>

<sup>&</sup>lt;sup>28</sup> IndiaAI, Call for Partnerships as part of the IndiaAI Safety Institute <a href="https://indiaai.gov.in/article/call-for-partnerships-as-part-of-the-indiaai-safety-institute">https://indiaai.gov.in/article/call-for-partnerships-as-part-of-the-indiaai-safety-institute</a>

# 2.1.4 Cabinet of Ministers, Prime Minister's Office and Principal Scientific Advisor

The Cabinet cleared a comprehensive *national-level IndiaAI mission*<sup>29</sup> with a budget outlay of Rs. 10,371.92 crore. The IndiaAI mission is aimed to establish a comprehensive ecosystem to catalyse AI innovation through strategic programs and partnerships across public and private sectors. It focuses on democratising computing access, improving data quality, developing indigenous AI capabilities, attracting top AI talent, enabling industry collaboration, providing startup risk capital, ensuring socially impactful AI projects, and bolstering ethical AI. This mission is built around seven pillars: compute, innovation, datasets, application development, future skills, startup financing, and safe and trusted AI.

Further, the PMO including contributions from the Prime Minister's Economic Advisory Council (PM-EAC) and the Principal Scientific Advisor's (PSA) office have also been highly influential in AI policymaking, given their cross-agency mandate and strong leadership (*refer to table in Sec 3 for more details*). The first iteration of the India AI Governance Guidelines was drafted by the Office of the Principal Scientific Adviser (PSA) and released in January 2025. Additionally, if the proposed AI Governance Group (AIGG) is constituted, it will be chaired by the PSA's office, further positioning them to play a significant role in steering India's AI governance landscape.<sup>30</sup>

#### 2.2 State Government Stakeholders:

India's states are emerging as key drivers of AI adoption, implementing tailored strategies to address local challenges and promote sectoral advancements. From fostering AI-driven governance to establishing centers of excellence, states like Gujarat, Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, and Telangana exemplify the diversity and potential of India's AI landscape.

#### 2.2.1 Al Integration: Gujarat

The state has established a 10-member AI Task Force<sup>31</sup>, led by the Principal Secretary of the Department of Science and Technology, comprising directors from premier institutions such as ICT, IIT, and IIIT, along with top industry experts. This task force is aimed at fostering AI integration across critical sectors and enhancing Gujarat's role as an innovation hub. To further its AI ambitions, the state government has signed a Memorandum of Understanding (MoU) with Microsoft to establish an AI Centre of Excellence at GIFT City and partnered with IBM to develop an AI Cluster at GIFT City. Additionally, Gujarat's launch of three *Centers of Excellence* (*CoEs*) in sustainable cities, healthcare, and agriculture underscores its commitment to addressing pressing societal challenges through AI. Supported by nearly ₹990 crore from the

https://indiaai.gov.in/article/report-on-ai-governance-guidelines-development

<sup>&</sup>lt;sup>29</sup> IndiaAI Mission (2024) <a href="https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2012357">https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2012357</a>

<sup>&</sup>lt;sup>30</sup> Report on AI governance guidelines development

<sup>&</sup>lt;sup>31</sup> Times of India article on 'Gujarat Government forms AI Taskforce for Tech-driven Governance' <a href="https://timesofindia.indiatimes.com/city/ahmedabad/gujarat-govt-forms-ai-taskforce-for-tech-driven-governance-growth/articleshow/116377281.cms">https://timesofindia.indiatimes.com/city/ahmedabad/gujarat-govt-forms-ai-taskforce-for-tech-driven-governance-growth/articleshow/116377281.cms</a>

central government, these centers aim to develop innovative and scalable solutions that align with the state's vision of sustainable development.

Gujarat has also approved a comprehensive five-year AI Implementation Action Plan (2025–2030) in July 2025<sup>32</sup> aimed at making the state a leader in AI-driven governance. This plan focuses on six pillars, building data infrastructure, developing AI talent, promoting R&D and startups, and ensuring "safe and trusted AI" use in government. Over 2.5 lakh people including students, MSMEs and officials will be trained in AI/ML under this plan. The state is creating an "AI and Deep Tech Mission" as a dedicated body to drive AI strategy and innovation, launching a state AI data repository, "AI factories" for departments, and pilot projects across health, agriculture, fintech, etc.

#### 2.2.2 Al for Social Good: Tamil Nadu

The Tamil Nadu Artificial Intelligence Mission (TNAIM)<sup>33</sup> exemplifies a state-level approach to using AI for governance and socio-economic progress. With an initial investment of ₹13.93 crore, TNAIM focuses on "Social good by design," integrating AI into governance frameworks to address societal challenges. Spearheaded by the Tamil Nadu e-Governance Agency, the mission collaborates with local tech organisations to create impactful AI solutions that enhance governance, healthcare, and education.

#### 2.2.3 AI City: Andhra Pradesh

Andhra Pradesh is emerging as a significant hub for AI activity. Google has announced a \$15 billion investment (2026–2030) to establish a major AI data centre in Visakhapatnam , its largest facility outside the United States.<sup>34</sup> The project will feature a purpose-built data centre campus with gigawatt-scale compute capacity, underscoring the state's growing importance in India's AI ecosystem.

#### 2.2.4 Al in Education and Global Capability Centers: Karnataka

Karnataka has prioritised AI adoption in education and global business services. The launch of *Shiksha Co-pilot*<sup>35</sup>, a generative AI-powered assistant, revolutionises lesson planning and teaching methods, reflecting the state's commitment to AI in education. Karnataka's *Global Capability Centers (GCC) Policy* aims to establish 500 additional centers, creating 3.5 lakh jobs by 2029, further solidifying the state's position as a hub for AI-driven international business

<sup>&</sup>lt;sup>32</sup> The Hindu article on "Gujarat approves action plan for Artificial Intelligence implementation in governance" <a href="https://www.thehindu.com/news/national/gujarat/gujarat-approves-action-plan-for-artificial-intelligence-implementation-in-governance/article69861853.ece">https://www.thehindu.com/news/national/gujarat/gujarat-approves-action-plan-for-artificial-intelligence-implementation-in-governance/article69861853.ece</a>

New Indian Express article on 'New Mission to make Tamil Nadu leading AI hub in 5 years' <a href="https://www.newindianexpress.com/states/tamil-nadu/2024/Nov/06/new-mission-to-make-tamil-nadu-leading-ai-hub-in-five-years">https://www.newindianexpress.com/states/tamil-nadu/2024/Nov/06/new-mission-to-make-tamil-nadu-leading-ai-hub-in-five-years</a>

The Indian Express Article on "Google's \$15 billion AI investment in Andhra Pradesh: A boost, a beginning" <a href="https://indianexpress.com/article/opinion/editorials/googles-15-billion-ai-investment-andhra-pradesh-boost-beginning-10313626/">https://indianexpress.com/article/opinion/editorials/googles-15-billion-ai-investment-andhra-pradesh-boost-beginning-10313626/</a>

<sup>&</sup>lt;sup>35</sup> Indian Express article on 'Karnataka Government launches Shiksha co-pilot' <a href="https://indianexpress.com/article/cities/bangalore/karnataka-govt-shiksha-copilot-generative-ai-assistant-teachers-lesson-plans-students-9627129/">https://indianexpress.com/article/cities/bangalore/karnataka-govt-shiksha-copilot-generative-ai-assistant-teachers-lesson-plans-students-9627129/</a>

solutions. Additionally, Karnataka has initiated an AI/ML administration unit and offers stipends to engineering students pursuing AI/ML training, fostering a robust talent pool.

#### 2.2.5 Al for Agriculture, Education, and Healthcare: Maharashtra

Maharashtra has taken significant steps to integrate AI into critical sectors through a partnership with Google to implement AI solutions in agriculture, healthcare, and education<sup>36</sup>. The state's collaboration with the National Institute of Electronics and Information Technology has led to the establishment of a *Centre of Excellence in AI, IoT, Robotics, and Industry 4.0*, aimed at developing a proficient AI workforce to meet future demands. Complementing these efforts, the state's MahaAgri-AI Policy places a strong emphasis on using AI and digital technologies to enhance agricultural productivity, improve farmer decision-making, and strengthen market linkages, positioning Maharashtra as a frontrunner in agri-tech innovation.<sup>37</sup>

#### 2.2.6 AI in E-Governance: Telangana

Telangana has been a pioneer in leveraging AI for public administration, collaborating with Meta to enhance e-governance through generative AI<sup>38</sup>. This partnership aims to improve public service efficiency by deploying cutting-edge AI models like the Llama series over the next two years. Additionally, Telangana's partnership with the World Trade Centers Association (WTCA) to establish an AI-centric World Trade Center in Hyderabad underscores its ambition to position itself as a global AI innovation hub.

#### 2.2.7 AI-led Transformation: Uttar Pradesh

Uttar Pradesh is committed to transforming key cities, Lucknow, Kanpur, Gautam Buddha Nagar (Noida), Varanasi, and Prayagraj (Allahabad), into leading hubs of AI and IT excellence.<sup>39</sup> Lucknow has been designated as India's first "AI City,"<sup>40</sup> with a 40-acre site near the airport and along the Lucknow-Kanpur highway dedicated to AI-driven development. This hub will accommodate various tech-focused sectors, including AI start-ups, data centers, data analytics, AI-based training, and data forensics. To foster a knowledge-driven ecosystem, the state has collaborated with premier academic institutions such as the Indian Institute of Technology-Kanpur, the Indian Institute of Management-Lucknow, and APJ Abdul Kalam Technical University.

<sup>36</sup> Economic Times article on 'Google, Maharashtra government to collaborate for AI-led development' <a href="https://economictimes.indiatimes.com/tech/technology/google-maharashtra-government-to-collaborate-for-ai-led-development/articleshow/107535075.cms?from=mdr">https://economictimes.indiatimes.com/tech/technology/google-maharashtra-government-to-collaborate-for-ai-led-development/articleshow/107535075.cms?from=mdr</a>

<sup>&</sup>lt;sup>37</sup> MahaAgri-AI Policy <a href="https://agritech.tnau.ac.in/pdf/Maha%20Agri-AI%20Policy%202025%E2%80%932029">https://agritech.tnau.ac.in/pdf/Maha%20Agri-AI%20Policy%202025%E2%80%932029</a> English 250619 104818.pdf

<sup>&</sup>lt;sup>38</sup> Business Standard article on 'Meta, Telangana govt partnership for e-gov, citizen svcs leveraging AI tech' <a href="https://www.business-standard.com/technology/tech-news/meta-telangana-govt-partnership-for-e-gov-citizen-svcs-leveraging-ai-tech-124090500692">https://www.business-standard.com/technology/tech-news/meta-telangana-govt-partnership-for-e-gov-citizen-svcs-leveraging-ai-tech-124090500692</a> 1.html

<sup>&</sup>lt;sup>39</sup> Invest UP Article on 'Key cities in Uttar Pradesh set to get an artificial intelligence makeover' <a href="https://invest.up.gov.in/wp-content/uploads/2023/07/Key">https://invest.up.gov.in/wp-content/uploads/2023/07/Key</a> 040723.pdf

<sup>&</sup>lt;sup>40</sup>IndiaAI Article on 'UP to build India's first AI city in Lucknow' <a href="https://indiaai.gov.in/news/up-to-build-india-s-first-ai-city-in-lucknow">https://indiaai.gov.in/news/up-to-build-india-s-first-ai-city-in-lucknow</a>

In addition to fostering innovation, Uttar Pradesh is utilising AI to improve governance and public safety. A significant initiative is the implementation of the AI-powered video analytics platform "Jarvis" across 70 prisons in the state. This platform processes real-time video feeds from over 700 CCTV cameras to monitor inmate behavior, identify suspicious activities, and prevent incidents of violence, enhancing security and operational efficiency. Uttar Pradesh also aims to train 1 million people per month in AI, data analytics, cybersecurity, etc. by partnering with Microsoft, Google, and Intel under a new "AI Pragya" program. This mass upskilling initiative targets teachers, farmers, and youth to build an AI-ready workforce.

## 2.3 Startups and Industry Leaders

#### 2.3.1 Startups

India's AI startup ecosystem is undergoing rapid transformation, with significant contributions from emerging technologies such as AI, machine learning (ML), etc. This growth is not limited to major metropolitan areas only; Tier II and III cities are increasingly becoming critical innovation hubs<sup>43</sup>. These regions, now home to 40% of India's tech startups, benefit from the convergence of local talent, lower operational costs, and expanding digital infrastructure. This shift is not only fostering innovation but also promoting inclusive growth, effectively bridging regional disparities. The healthcare and education sectors, in particular, are prime candidates for AI-driven solutions tailored to India's unique market needs<sup>44</sup>. These applications hold the potential for profound socio-economic impact, improving access to critical services.

According to a 2024 report published by Nasscom, the Indian AI market is expected to grow to between US\$17 billion and US\$22 billion by 2027, attracting investments of US\$4 billion and becoming the third-largest talent base with an expected 1.25 million to 1.35 million people with AI skills<sup>45</sup>. To support this expanding startup ecosystem, the IndiaAI mission has dedicated a pillar on 'Startup Financing'<sup>46</sup>. This pillar supports and accelerates deep-tech AI startups by providing streamlined access to funding for innovative AI projects. Under this pillar, the Mission targets to fast-track India's AI ecosystem through strategic funding support. A flagship project is the government-backed Sarvam LLM. In April 2025, the GoI selected the AI startup Sarvam to build India's first sovereign foundation model.<sup>47</sup> The goal is an AI model

<sup>&</sup>lt;sup>41</sup> eGov Magazine (elets technomedia) Article on 'AI Infrastructure in Uttar Pradesh Paving The Way For Trillion-Dollar Economy' <a href="https://egov.eletsonline.com/2025/01/ai-infrastructure-in-uttar-pradesh-paving-the-way-for-trillion-dollar-economy/">https://egov.eletsonline.com/2025/01/ai-infrastructure-in-uttar-pradesh-paving-the-way-for-trillion-dollar-economy/</a>

<sup>&</sup>lt;sup>42</sup> Ainvest. "UP Launches AI Training Program with Google, Microsoft, Intel." <a href="https://www.ainvest.com/news/launches-ai-training-program-google-microsoft-intel-2507/">https://www.ainvest.com/news/launches-ai-training-program-google-microsoft-intel-2507/</a>.

<sup>&</sup>lt;sup>43</sup>IndiaAl Article on 'From Bengaluru to Boston: The global ascent of Indian Al startups in 2024' <a href="https://indiaai.gov.in/article/from-bengaluru-to-boston-the-global-ascent-of-indian-ai-startups-in-2024">https://indiaai.gov.in/article/from-bengaluru-to-boston-the-global-ascent-of-indian-ai-startups-in-2024</a>

<sup>&</sup>lt;sup>44</sup>AI Brilliance Article on 'How India is Embracing AI to Revolutionize Industries' <a href="https://www.aibrilliance.com/blog/how-india-is-embracing-ai-to-revolutionize-industries">https://www.aibrilliance.com/blog/how-india-is-embracing-ai-to-revolutionize-industries</a>

 $<sup>^{45} \</sup>underline{\text{https://www.spglobal.com/en/research-insights/special-reports/india-forward/indias-ai-ambitions-can-public-private-partnerships-lead-the-way}$ 

<sup>&</sup>lt;sup>46</sup> IndiaAI Mission Startup Financing Pillar https://indiaai.gov.in/hub/indiaai-startup-financing

<sup>&</sup>lt;sup>47</sup> Government Selects Indian AI Company Sarvam to Develop Nation's First Sovereign Large Language Model - The Times of India.

https://timesofindia.indiatimes.com/technology/artificial-intelligence/government-selects-indian-ai-company-sarvam-to-develop-nations-first-sovereign-large-language-model/articleshow/120645896.cms.

fluent in Indian languages and capable of reasoning at scale, fully developed and hosted in India to further Atmanirbhar (self-reliant) AI. The government has also funded a consortium of IIT researchers called "BharatGen" that in mid-2025 released Param 1, a 2.9 billion—parameter bilingual LLM (English—Hindi) trained on 5 trillion tokens. All these efforts align with the IndiaAI Mission's mandate to support "AI made in India, for India". The government has earmarked ₹1,500 crore specifically to incentivise domestic AI model development. This includes providing cloud GPU credits at token costs (India is installing tens of thousands of GPUs in national AI compute clusters) and fostering collaboration between startups, academia and industry.

The motivation is twofold: (1) reduce reliance on foreign AI models (which often struggle with Indian languages and contexts), and (2) ensure India's data and AI progress remain sovereign and secure. By developing Indian LLMs, from massive general models like Sarvam to niche vernacular models, India aims to democratise AI benefits across its multilingual society and nurture a domestic AI innovation ecosystem that can compete globally.

#### 2.3.2 Industry Leaders:

India's AI market is projected to reach US\$8.30 billion in 2025 and expand to US\$28.36 billion by 2030, thereby underscoring the country's rapidly developing technological landscape<sup>48</sup>. This growth is being fueled by a range of factors, including a rising number of AI tech companies, increased equity funding, and significant initiatives like the IndiaAI mission, which is primed to direct investment into infrastructure, computing, and research. The market's expansion is not just a quantitative shift but also a qualitative evolution driven by the innovations of industry leaders that are redefining the AI ecosystem across diverse sectors.

Among these trailblazers, are companies like Tata Elxsi<sup>49</sup> (provider of AI and machine learning solutions with deep applications in automotive, healthcare, and broadcasting), Fractal Analytics<sup>50</sup> (leverages its expertise in predictive analytics to help businesses in retail, healthcare, and financial services optimise operations and manage risk), Haptik<sup>51</sup> (a pioneer in conversational AI, has transformed customer engagement through AI-powered chatbots and virtual assistants), Karya<sup>52</sup> (enabling the rural poor to contribute voice recordings of them speaking in regional dialects to help train AI to deliver better results in more languages), Infosys, with its Infosys Nia platform<sup>53</sup> (global leader in AI-driven business automation), Persistent Systems<sup>54</sup> (empowering sectors like healthcare, banking, and manufacturing to streamline operations and enhance customer experiences), Arya.ai's<sup>55</sup> (propelling AI innovation especially in insurance and autonomous vehicles), to name a few. Meanwhile, Mad

<sup>&</sup>lt;sup>48</sup> The Institute of Cost Accountants of India Industry Insights November- December 2024 <a href="https://icmai.in/icmai/MI">https://icmai.in/icmai/MI</a> Committee/Industry Insights Nov Dec 2024.pdf

<sup>&</sup>lt;sup>49</sup> *Tata Elxsi* https://www.tataelxsi.com/

<sup>50</sup> Fractal https://fractal.ai/

<sup>&</sup>lt;sup>51</sup> Haptik <u>https://www.haptik.ai/</u>

<sup>52</sup> Karya https://karya.in/

<sup>&</sup>lt;sup>53</sup> Infosys NIA <a href="https://www.infosys.com/ar-vr/nia.html">https://www.infosys.com/ar-vr/nia.html</a>

<sup>&</sup>lt;sup>54</sup> Persistent <u>https://www.persistent.com/</u>

<sup>&</sup>lt;sup>55</sup> Arya.ai <a href="https://arya.ai/">https://arya.ai/</a>

Street Den's<sup>56</sup> Use of AI to revolutionise the retail sector through personalised recommendations and inventory management exemplifies AI's potential in transforming consumer experiences.

Further, Companies like Intel<sup>57</sup> and Bosch<sup>58</sup>, with their global expertise in AI, are at the forefront of driving advancements in chip development, machine learning, and IoT solutions, particularly in manufacturing, smart mobility, and urban infrastructure. Simultaneously, Indian giants like TCS<sup>59</sup>, Infosys<sup>60</sup>, Wipro<sup>61</sup>, and Reliance<sup>62</sup> are seamlessly integrating AI into their service offerings, both within India and on the global stage. Moreover, multinational corporations such as Google<sup>63</sup>, Microsoft, and IBM have established AI research centers in India and are working towards enriching the country's innovation ecosystem and fostering talent development. While Google is working towards expanding its AI capabilities in regional languages, setting up a Google Safety Engineering Centre in India, and empowering 10 million Indians with AI skills<sup>64</sup>, Microsoft has recently announced an investment of US \$3bn<sup>65</sup> over two years in developing Indian cloud and AI infrastructure to accelerate adoption of AI, skilling and innovation. IBM, on the other hand, is focussing on AI scalability and semiconductor R&D in India<sup>66</sup>. Microsoft and Google have made headline investments in India's AI and cloud landscape, signaling both commercial opportunity and alignment with India's AI vision. In January 2025, Microsoft CEO Satya Nadella announced a \$3 billion investment over two years to expand Microsoft's cloud and AI infrastructure in India, including establishing new datacenters.<sup>67</sup> Alongside, Microsoft launched a plan to skill 10 million Indians in AI by 2030, working with Indian institutions to train students, developers, and government officials. Microsoft Research India set up an AI Innovation Network to fast-track research-to-product translation in areas like healthcare and education. It's also partnering with India's SaaS startup community (through SaaSBoomi) to support 5,000 startups and groom 10,000 AI entrepreneurs. Nadella described India as "rapidly becoming a leader in AI innovation" and reiterated Microsoft's commitment to help make "India AI-first" in a responsible way.

In October 2025, Google announced a \$15 billion investment to build a massive AI computing hub in India – its largest outside the U.S.. This AI data center will be in Visakhapatnam, Andhra

<sup>&</sup>lt;sup>56</sup> Observer Research Foundation Article (expert Speak) on 'Mad Street Den: Building generalisable Artificial Intelligence architectures at scale' <a href="https://www.orfonline.org/expert-speak/mad-street-den-building-generalisable-artificial-intelligence-architectures-scale">https://www.orfonline.org/expert-speak/mad-street-den-building-generalisable-artificial-intelligence-architectures-scale</a>

<sup>&</sup>lt;sup>57</sup> Intel https://www.intel.com/content/www/us/en/homepage.html

<sup>&</sup>lt;sup>58</sup> Bosch Global <u>https://www.bosch.com/</u>

<sup>&</sup>lt;sup>59</sup> *Tata Consultancy Services* https://www.tcs.com/

<sup>60</sup> Infosys https://www.infosys.com/

<sup>61</sup> Wipro https://www.wipro.com/

<sup>62</sup> Reliance Industries Limited https://www.ril.com/

<sup>63</sup> https://thenextweb.com/news/google-opens-a-new-ai-research-centre-in-india

https://www.business-standard.com/technology/tech-news/google-plans-to-bring-ai-to-every-indian-as-it-completes-20-yrs-in-country-124100300500\_1.html

<sup>65 &</sup>lt;u>https://news.microsoft.com/en-in/microsoft-announces-us-3bn-investment-over-two-years-in-india-cloud-and-ai-infrastructure-to-accelerate-adoption-of-ai-skilling-and-innovation/</u>

 $<sup>\</sup>frac{66}{\underline{\text{https://www.cnbctv18.com/technology/india-leads-in-ai-adoption-but-faces-challenges-in-scaling-ibm-19478708.htm}}{\underline{\text{https://www.cnbctv18.com/technology/india-leads-in-ai-adoption-but-faces-challenges-in-scaling-ibm-19478708.htm}}}$ 

<sup>&</sup>lt;sup>67</sup> India, Source. "Microsoft Announces US \$3bn Investment over Two Years in India Cloud and AI Infrastructure to Accelerate Adoption of AI, Skilling and Innovation." <a href="https://news.microsoft.com/en-in/microsoft-announces-us-3bn-investment-over-two-years-in-india-cloud-and-ai-infrastructure-to-accelerate-adoption-of-ai-skilling-and-innovation/">https://news.microsoft.com/en-in/microsoft-announces-us-3bn-investment-over-two-years-in-india-cloud-and-ai-infrastructure-to-accelerate-adoption-of-ai-skilling-and-innovation/</a>.

Pradesh, developed in partnership with Adani (for infrastructure) and Bharti Airtel (telecom). <sup>68</sup> The facility will provide "gigawatt-scale" compute capacity and anchor a new subsea Internet cable landing in India. This move underscores Google's motivation: securing a central role in India's cloud infrastructure (competing with AWS and Azure) and ensuring that the next generation of AI applications in India run on Google platforms.

## 2.4 Academic Institutions and Collaborative Partnerships

India's academic and research institutions have been a big pillar forming the bedrock of AI innovation and talent development.

#### 2.4.1 Premier Institutions:

- Institutes like the Indian Institutes of Technology (IITs), Indian Institute of Science (IISc), and IIIT Hyderabad are at the forefront of AI research<sup>69</sup>. Their contributions include advancements in natural language processing (NLP), computer vision, and machine learning algorithms tailored for India-specific applications.
- To realise the vision of "Viksit Bharat," three AI CoEs led by top educational institutions in collaboration with industry partners and startups have been set up<sup>70</sup>. They will conduct interdisciplinary research, develop cutting-edge applications, and create scalable solutions in these sectors. This initiative aims to galvanise an effective AI ecosystem and nurture high-quality human resources in these critical fields.

#### 2.4.2 Collaborations and Skill Development:

In addition to the work being done by premier institutes in the country, there have been several collaborative engagements that have been secured as part of public-private partnerships.

Some of these include:

- With an investment of \$3 billion, India and Microsoft have partnered to accelerate AI adoption and development in India<sup>71</sup>. Key areas of focus include: skilling, innovation, development of cloud and AI infrastructure. This collaboration aims to position India as a global leader in AI while ensuring inclusive and sustainable growth.
- In 2023, 'India AI' and Meta India signed an MoU to strengthen collaboration in AI and Emerging Technologies. The partnership focuses on key areas such as open-source AI accessibility, research cooperation, and the development of India's AI ecosystem.<sup>72</sup>

<sup>69</sup>IndiaAI Article on 'Top 10 AI research centres at Indian universities' <a href="https://indiaai.gov.in/article/top-10-ai-research-centres-at-indian-universities">https://indiaai.gov.in/article/top-10-ai-research-centres-at-indian-universities</a>

<sup>68 &</sup>quot;In Biggest India Investment, Google to Invest \$15 Bn in AI Data Centre in Andhra Pradesh — the Details, What This Means" <a href="https://indianexpress.com/article/business/google-india-investment-ai-data-centre-andhra-pradesh-10306551/">https://indianexpress.com/article/business/google-india-investment-ai-data-centre-andhra-pradesh-10306551/</a>.

<sup>70</sup> Times of India Article on 'India Launches Three AI Centres of Excellence to Propel Innovation' https://timesofindia.indiatimes.com/education/news/india-launches-three-ai-centres-of-excellence-to-propel-innovation/articleshow/114268907.cms

<sup>&</sup>lt;sup>71</sup>Microsoft Article on 'Microsoft announces US \$3bn investment over two years in India cloud and AI infrastructure to accelerate adoption of AI, skilling and innovation' <a href="https://news.microsoft.com/en-in/microsoft-announces-us-3bn-investment-over-two-years-in-india-cloud-and-ai-infrastructure-to-accelerate-adoption-of-ai-skilling-and-innovation/">https://news.microsoft.com/en-in/microsoft-announces-us-3bn-investment-over-two-years-in-india-cloud-and-ai-infrastructure-to-accelerate-adoption-of-ai-skilling-and-innovation/</a>

<sup>&</sup>lt;sup>72</sup> IndiaAI Article on 'India AI and Meta sign an MoU to establish a framework in AI & Emerging Technologies' https://indiaai.gov.in/news/india-ai-and-meta-sign-an-mou-to-establish-a-framework-in-ai-emerging-technologies

Additionally, the Ministry of Skill Development & Entrepreneurship (MSDE) joined forces with Meta to advance AI-driven skill development across the country. This initiative emphasises AI-powered assistance, Virtual & Mixed Reality training, and digital skilling to empower learners and enhance workforce capabilities.<sup>73</sup>

- The state of Andhra Pradesh has signed an MoU with Google to promote AI adoption in sectors like healthcare and boost the local startup ecosystem. The collaboration focuses on skill development, bridging the digital divide, and providing training to help citizens thrive in an AI-driven economy. Google will also support innovation and entrepreneurship within the state's AI startup ecosystem.<sup>74</sup>
- The Maharashtra government entered into an MoU with Google to leverage artificial intelligence for advancements in agriculture, healthcare, and education sectors.<sup>75</sup>

## 2.5 Civil Society Organisations (CSOs)

CSOs play a crucial role in ensuring that AI adoption is ethical, equitable, and inclusive. One of the primary contributions of CSOs lies in advocacy and awareness-building. These organisations are at the forefront of addressing critical issues such as data privacy, algorithmic bias, and AI governance. Through sustained advocacy, they ensure that AI policies and regulatory frameworks prioritise fundamental human rights, safeguard individual freedoms, and promote social justice. For instance, civil society's active engagement in debates surrounding the ethical use of AI ensures that the technology is developed in alignment with the values of fairness, transparency, and accountability.<sup>76</sup> Additionally, CSOs often highlight the potential negative impacts of AI on marginalised and underrepresented communities<sup>77</sup>, advocating for policies that protect their rights and interests. This is particularly important in rural and underserved areas, where the implications of AI can disproportionately affect access to resources, education, and employment opportunities.

Reports such as The Dialogue's "Towards Trustworthy AI: Sectoral Guidelines for Responsible Adoption'78, Aapti Institute's study on "Artificial Intelligence and Potential Impacts on Human Rights in India'79, and Pranava Institute's "Ethics of AI in the Public Sector: How Can We

<sup>&</sup>lt;sup>73</sup> PIB Press release on MSDE partners with Meta for AI Assistant in Skill India Mission and 5 Centers of Excellence in NSTIs https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2064628

<sup>&</sup>lt;sup>74</sup> Business Standard Article on 'Google signs MoU with AP govt to accelerate AI adoption and innovation' <a href="https://www.business-standard.com/companies/news/google-signs-mou-with-ap-govt-to-accelerate-ai-adoption-and-innovation-124120500932">https://www.business-standard.com/companies/news/google-signs-mou-with-ap-govt-to-accelerate-ai-adoption-and-innovation-124120500932</a> 1.html

<sup>&</sup>lt;sup>75</sup> IndiaAI Article on 'The Maharashtra government signed an MoU with Google to use AI for development' <a href="https://indiaai.gov.in/news/the-maharashtra-government-signed-an-mou-with-google-to-use-ai-for-development">https://indiaai.gov.in/news/the-maharashtra-government-signed-an-mou-with-google-to-use-ai-for-development</a>

<sup>76</sup> Observer Research Fund Report on 'Moving Horizons': A Responsive and Risk-Based Regulatory Framework for A.I.' Moving Horizons': A Responsive and Risk-Based Regulatory Framework for A.I., June 2024, ORF

<sup>&</sup>lt;sup>77</sup> Aapti Institute Report on 'Understanding Generative Artificial Intelligence's Implications on Gender Using a Value Chain Approach and a UNGP Lens' <u>Understanding Generative Artificial Intelligence's Implications on Gender Using a Value Chain Approach and a UNGP Lens, Aapti Institute, July 22nd, 2024.</u>

<sup>78</sup> The Dialogue Research Paper: Towards Trustworthy AI: Sectoral Guidelines for Responsible Adoption https://thedialogue.co/publication/research-paper-towards-trustworthy-ai-sectoral-guidelines-for-responsible-adoption/

<sup>&</sup>lt;sup>79</sup> Aapti Institute's report 'Artificial Intelligence and Potential Impacts on Human Rights in India' Commissioned by UNDP <a href="https://www.undp.org/india/publications/artificial-intelligence-and-potential-impacts-human-rights-india">https://www.undp.org/india/publications/artificial-intelligence-and-potential-impacts-human-rights-india</a>

*Ensure Ethical and Responsible AI Deployments?* are notable examples of civil society organisations contributing valuable insights in this space, grounded in the Indian context.

These efforts contribute to a more holistic understanding of the potential societal impacts of AI and ensure that its benefits are shared equitably across different sections of society. By providing platforms for dialogue and facilitating collaborative engagement, civil society helps bridge the gap between technological innovation and societal needs, fostering a more inclusive and responsible AI ecosystem. With the consultations beginning on AI Safety Institutes and AI Governance Guidelines, the role of civil society will be paramount to provide a holistic view.

<sup>80</sup> The Pranava Institute on 'Ethics of AI in the Public Sector' <a href="https://www.pranavainstitute.com/post/new-project-ethics-of-ai-in-the-public-sector">https://www.pranavainstitute.com/post/new-project-ethics-of-ai-in-the-public-sector</a>

# 3. Regulatory and Policy Developments

Sr. No.	Development with Timeframe	Overview and Details
1	National Strategy for AI (June 2018) <sup>81</sup>	In June 2018, NITI Aayog unveiled India's <i>National Strategy for Artificial Intelligence</i> under the vision of "AI for All," aiming to establish the country as a global hub for AI innovation and application. The strategy recognised the transformative potential of AI in addressing socio-economic challenges while highlighting key barriers such as limited research expertise, high implementation costs, low public awareness, and concerns regarding data privacy. To overcome these challenges, the strategy proposed several targeted initiatives.  The focus areas identified for AI adoption included critical sectors such as healthcare, agriculture, education, smart cities, and transportation, where AI could deliver significant social and economic impact. By targeting these domains, the strategy aimed to address pressing national priorities while enabling India to leverage its demographic and technological potential in the global AI landscape.
2	Constitution of AI Committees (2018- 2022) <sup>82</sup>	Between 2018 and 2022, the Ministry of Electronics and Information Technology (MeitY) constituted four expert committees to formulate AI policy frameworks and promote its adoption across various sectors. These committees brought together industry leaders, academicians, and policymakers to address challenges and identify strategic opportunities for AI integration in India. A key outcome of their deliberations was the

National Strategy for Artificial Intelligence <a href="https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf">https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf</a>
 MeitY circular on constitution of four Committies of Artificial Intelligence
 <a href="https://www.meity.gov.in/writereaddata/files/constitution">https://www.meity.gov.in/writereaddata/files/constitution of four committees on artificial intelligence 0.pdf</a>

recommendation to establish a National AI Resource Platform (NAIRP), designed to provide shared infrastructure, data, and tools to accelerate AI research and development.

To promote innovation and safe experimentation, the committees advocated for the creation of regulatory sandboxes, allowing controlled testing of AI solutions in real-world environments. Additionally, the committees proposed the formation of an Apex National Council for AI governance, a high-level body to oversee the implementation of AI strategies, ensure alignment with national priorities, and provide policy direction.

# DOT's Indian AI Stack Paper (September 2020)<sup>83</sup>

In September 2020, the Department Telecommunications (DoT) introduced the Indian AI Stack paper, proposing a structured framework to enable the seamless development and deployment of AI technologies in the country. The envisioned AI Stack comprises five horizontal layers: infrastructure, storage, compute, application, and data exchange. These layers are designed to collectively support an interoperable and scalable ecosystem for AI innovation. Complementing this horizontal framework is a vertical layer dedicated to security and governance, emphasizing the importance of robust safeguards to ensure data protection, ethical usage, and compliance with regulatory standards.

The paper advocated for a phased implementation strategy, emphasising the need for extensive stakeholder engagement across government, industry, academia, and civil society. participatory approach was aimed to address diverse requirements and build a resilient ecosystem. Furthermore, the framework aligned with the government's vision of inclusive growth, encapsulated in the "Sabka Sath, Sabka Vikas"

<sup>83</sup>DoT Consultation Paper on Indian Artificial Intelligence Stack <a href="https://www.tec.gov.in/pdf/Whatsnew/ARTIFICIAL%20INTELLIGENCE%20-%20INDIAN%20STACK.pdf">https://www.tec.gov.in/pdf/Whatsnew/ARTIFICIAL%20INTELLIGENCE%20-%20INDIAN%20STACK.pdf</a>

		policy, by prioritising accessibility and equity in the deployment of AI solutions.
4	Responsible AI: Principles Operationalised (August 2021) <sup>84</sup>	NITI Aayog introduced a comprehensive framework to guide the ethical development, deployment, and governance of AI in India. The framework was built upon seven foundational principles: safety, equality, inclusion, privacy, transparency, accountability, and the promotion of human values. These principles underscore the importance of fostering AI systems that are not only innovative but also equitable, secure, and aligned with societal well-being. The report also proposed an independent advisory body (Council for Ethics and Technology) and integration of AI ethics in educational curricula.
5	Digital Personal Data Protection Act (2023) <sup>85</sup>	The DPDP Act, as a comprehensive data protection framework, will have a profound impact on how organisations manage and process personal data, directly influencing the development and application of AI technologies. AI model developers and users must navigate the DPDPA's regulatory requirements, including its provisions on personal data processing, restricted grounds for data usage, individual rights over personal data, and the specific exemptions applicable to AI training and development.  While the consent-focused framework of the DPDPA may pose certain challenges for AI training and development, the legislation also introduces provisions that could facilitate AI growth. These include allowances for publicly available data, research exemptions, a limited territorial scope, and a risk-based approach to assigning obligations. Together, these elements are expected to play a

<sup>84</sup> Niti Ayog RESPONSIBLE AI #AIForAll Approach Document <a href="https://www.niti.gov.in/sites/default/files/2021-08/Part2-Responsible-AI-12082021.pdf">https://www.niti.gov.in/sites/default/files/2021-08/Part2-Responsible-AI-12082021.pdf</a>
85 Digital Personal Data Protection Act 2023
<a href="https://www.meity.gov.in/writereaddata/files/DigitalPersonalDataProtectionAct2023.pdf">https://www.meity.gov.in/writereaddata/files/DigitalPersonalDataProtectionAct2023.pdf</a>

		critical role in shaping the trajectory of AI innovation in India.
6	Proposed Digital India Act (2023) <sup>86</sup>	The proposed Digital India Act of 2023 presented a forward-looking framework aimed at addressing the multifaceted challenges posed by emerging technologies like AI while fostering innovation and economic growth. A significant focus of the Act was on mitigating user harms arising from AI systems.
		The Act emphasised the principles of an open internet, ensuring equitable access to digital resources while advocating for ethical AI use across sectors. This collaborative approach was intended to balance the protection of user interests with the encouragement of innovation, enabling the responsible development and deployment of AI-driven solutions.
7	RBI Report on AI in Banking (2022-23) <sup>87</sup>	Analysed AI adoption trends in Indian banks between 2015-16 and 2021-22. Highlighted readiness and challenges in incorporating AI into banking operations.
		The report positioned AI as a transformative force for the Indian banking sector while emphasising the need for a balanced approach that addresses associated risks and operational challenges.
8	GPAI Summit (2023) <sup>88</sup>	India, as the chair, hosted discussions on responsible AI, data governance, and societal impacts, reflecting India's commitment to shaping global AI norms.

RBI Report on Trend and Progress of Banking in India (2022-23) <a href="https://publications/PDFs/PDF">https://publications/PDFs/PDF</a>
 Https://gpaidelhi2023.indiaai.gov.in/

9	G20 Ministerial Declaration (2023) <sup>89</sup>	Advocated a "pro-innovation" AI regulatory approach, emphasising responsible AI, transparency, fairness, and human oversight. Reaffirmed commitment to G20 AI Principles (2019) and promoted international collaboration for achieving SDGs through AI.
10	Draft National Data Governance Policy (May 2022) <sup>90</sup>	Encouraged the sharing of anonymised public datasets for AI research and innovation. Proposed the establishment of the Indian Data Management Office for standardising data governance protocols.
11	PM's Economic Advisory Council Report on A Complex Adaptive System Framework to Regulate AI (January 2024) <sup>91</sup>	The report proposed a regulatory framework based on five principles: guardrails for limiting risks, human intervention, transparency, clear accountability, and a specialist regulator. Recommended mechanisms like AI factsheets, open-source audits, and algorithm registries.
12	India AI Mission (March 2024) <sup>92</sup>	Launched with a \$1.3 billion budget for strategic initiatives, including compute capacity, innovation centers, datasets platforms, application development, skilling, startup financing, and safe AI practices. Aimed to build an ecosystem for AI innovation in India.
13	Government Advisory on AI Due Diligence (March 2024) <sup>93</sup>	Issued compliance mandates for intermediaries and platforms, requiring labeling of AI-generated content, prevention of algorithmic discrimination, and safeguards against deepfakes. Revised advisory relaxed mandates for testing and focussed on

 $<sup>89\</sup> G20\ New\ Delhi\ Leaders'\ Declaration\ \underline{\rm https://www.mea.gov.in/Images/CPV/G20-New-Delhi-Leaders-Declaration.pdf}$ 

<sup>90</sup> National Data Governance Framework <a href="https://www.meity.gov.in/writereaddata/files/National-Data-Governance-">https://www.meity.gov.in/writereaddata/files/National-Data-Governance-</a>

Framework-Policy.pdf

91 PM's Economic Advisory Council Report on A Complex Adaptive System Framework to Regulate AI

https://eacpm.gov.in/wp-content/uploads/2024/01/EACPM\_AI\_WP-1.pdf

92 IndiaAI https://indiaai.gov.in/

<sup>93</sup> MeitY Advisory https://www.meity.gov.in/writereaddata/files/Advisory%2015March%202024.pdf

		responsible deployment and transparency in AI tools.
14.	SEBI Issues Consultation Paper on AI Regulation in Market Infrastructure <sup>94</sup>	SEBI released a consultation paper proposing amendments to the Securities Contracts (Regulation) (Stock Exchanges and Clearing Corporations) Regulations, 2018, the SEBI (Depositories and Participants) Regulations, 2018, and the SEBI (Intermediaries) Regulations, 2008. The amendments aim to establish accountability for the use of artificial intelligence (AI) tools by Market Infrastructure Institutions, Registered Intermediaries, and other SEBI-regulated entities.
15.	Telecommunications Engineering Centre's (TEC) Consultation on 'Robustness Assessment and Rating of Artificial Intelligence Systems in Telecom Networks and Digital Infrastructure'95	The TEC has developed a voluntary standard to assess and rate the robustness of AI systems in telecom networks and digital infrastructure. While tailored for these domains, the standard's core principles are universally applicable. This makes it relevant across various sectors where AI plays a pivotal role. The standards are currently open for public consultation.
16.	AI Governance and Guidelines Development (January 2025) <sup>96</sup>	The Advisory Group chaired by the Principal Scientific Advisor proposed a lifecycle-based governance structure with principles like transparency, accountability, safety, fairness, and inclusivity. Suggested operationalisation through defined responsibilities for all AI ecosystem actors and emphasised digital-by-design governance. Report is open for public consultation.

<sup>94</sup> SEBI Report <a href="https://www.sebi.gov.in/reports-and-statistics/reports/nov-2024/proposed-amendments-with-respect-to-assigning-responsibility-for-the-use-of-artificial-intelligence-tools-by-market-infrastructure-institutions-registered-intermediaries-and-other-persons-regulated-b\_88470.html">https://tec.gov.in/ai-robustness</a>

<sup>96</sup> IndiaAI Article on 'Report on AI governance guidelines development' https://indiaai.gov.in/article/report-on-aigovernance-guidelines-development

16.	Budgetary Allocations for AI for the year 2025-26 <sup>97</sup>	₹4,349.75 crore allocated in FY26 Union Budget for schemes directly or indirectly involving AI. ₹2000 crore allocated to the IndiaAI Mission—nearly 1/5th of the total scheme outlay (₹10,370 crore).1056% increase from the revised estimates in the 2024-25 budget.
17.	AI Kosha <sup>98</sup>	A Platform that provides a repository of datasets, models and use cases to enable AI innovation. AI Kosha hosts 316 datasets, with a significant portion focused on language translation tools for Indian languages. AI Kosh will also be used to give startups approvals to get access to the India AI Mission's 18,693 GPUs, or graphic processing units, which will be offered at a subsidised fee
18.	DPIIT Committee on AI and Copyright (July 2024))	In July 2024, the Department for Promotion of Industry and Internal Trade (DPIIT) constituted a committee to examine the intersection of artificial intelligence and copyright law in India. Its mandate is to assess how existing copyright provisions apply to AI-generated content, evaluate the legality of using copyrighted material for AI training (including Text and Data Mining), and propose reforms that balance technological innovation with the rights of creators.  The committee is also expected to study global regulatory approaches, consider industry and creative sector needs, and recommend targeted amendments to clarify issues of authorship, ownership, liability, and permissible data use. Its work will be central to shaping a modern copyright framework that supports both India's AI ambitions and a fair creative ecosystem.

<sup>&</sup>lt;sup>97</sup> The Hindu article on 'Union Budget 2025: Artificial Intelligence related schemes receive significant increase in

https://www.thehindu.com/data/union-budget-2025-artificial-intelligence-related-schemes-receive-significant-increase-in-allocations/article69163704.ece

98 AIKosh <a href="https://aikosh.indiaai.gov.in/home">https://aikosh.indiaai.gov.in/home</a>

19. The Reserve Bank of
India's (RBI) committee
on the "Framework for
Responsible and Ethical
Enablement of Artificial
Intelligence" (FREE-AI)<sup>99</sup>
(13 August 2025)

On 13 August 2025, the Reserve Bank of India (RBI) released the *Framework for Responsible and Ethical Enablement of Artificial Intelligence* (FREE-AI Report), based on recommendations of the FREE-AI Committee constituted in December 2024 to assess AI-related risks and propose regulatory measures for the financial sector.

The framework is built on **7 Sutras** — core principles guiding AI adoption: *Trust, People First, Innovation, Fairness, Accountability, Explainability,* and *Safety & Resilience*. These are anchored in **6 strategic pillars**:

- Innovation Enablement: Infrastructure, Policy, Capacity
- Risk Mitigation: Governance, Protection, Assurance

Together, they shape 26 actionable recommendations with clear timelines and implementation responsibilities.

#### Short-term recommendations include:

- AI disclosures in annual reports
- A standing committee to advise RBI on AI
- Building a financial sector DPI for AI model development
- Sector-wide AI inventories and repositories
- An AI innovation sandbox

#### **Medium-term recommendations include:**

- A graded AI liability and supervisory framework
- AI-focused data governance and cybersecurity norms
- Mandatory AI incident reporting and audits
- Incentives for indigenous, sector-specific AI models
- An overarching RBI AI policy

<sup>&</sup>lt;sup>99</sup> FREE-AI Committee Report Framework for Responsible and Ethical Enablement of Artificial Intelligence <a href="https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/FREEAIR130820250A24FF2D4578453F824C72ED9F5D5851.PDF">https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/FREEAIR130820250A24FF2D4578453F824C72ED9F5D5851.PDF</a>

# • AI compliance toolkits for regulated entities Board-approved AI policies covering governance, lifecycle management, and vendor oversight. 20. CCI's market study on AI On 6 October 2025, the Competition Commission of and Competition (October India (CCI), in partnership with MDI Gurugram, 6, 2025)<sup>100</sup> released a market study assessing India's AI ecosystem, competition risks across the AI stack, and the evolving regulatory landscape. **Key Takeaways** AI as a Transformation Driver: AI is rapidly moving from experimentation to mainstream deployment, driving automation, decision-making, productivity, and innovation across sectors. Market Growth: The global AI market grew from USD 93.24B (2020) to USD 186.43B (2024) and is projected to cross USD 1T by 2031. India's AI market grew from USD 3.2B to USD 6.05B in the same period and is expected to reach USD 31.94B by 2031. AI Stack Structure: • Data Layer: Dominated by Appen, AWS, Google, Microsoft, and Scale AI. • Compute & Infrastructure: AWS, Azure, and Google Cloud lead; chips dominated by TSMC, NVIDIA, and Intel. • AI Development: High adoption of ML (88%), NLP (78%), GenAI (66%), and CV (27%). • Foundation Models: Globally led by Google, Meta, Microsoft, and OpenAI; India remains nascent but expected to reach USD 7.8B by 2031, driven by players like Sarvam **AI Model Layer:** 76% of Indian startups

<sup>&</sup>lt;sup>100</sup> PIB article on Competition Commission of India Releases Market Study Report on Artificial Intelligence and Competition conducted through Management Development Institute Society (MDIS) <a href="https://www.pib.gov.in/PressReleasePage.aspx?PRID=2175607">https://www.pib.gov.in/PressReleasePage.aspx?PRID=2175607</a>

use open-source frameworks; 22% build indigenous tech. • **Deployment Layer:** Early-stage, with clusters in Karnataka and Telangana. • **User Interaction Layer:** Vibrant, led by Indian startups like Haptik and Yellow.ai. • **Governance Layer:** Emerging, with startups such as AiEnsured and Neurocrafts; activity concentrated in Karnataka and Maharashtra. **Sectoral Adoption:** AI is widely used across BFSI, retail, e-commerce, logistics, healthcare, and marketing for applications such as dynamic pricing, fraud detection, demand forecasting, risk analysis, drug discovery, personalisation, and predictive analytics. Competition Concerns: Risks include concentration in data, compute, and chips; algorithmic collusion; unilateral conduct; pricing practices; network effects; and M&A-related harms. Key entry barriers are limited access to quality data (68%), high cloud costs (61%), and talent shortages (61%). **Regulatory Landscape:** India's approach spans competition law (Competition Act), data protection (DPDPA 2023), and AI policy frameworks. CCI's tech-agnostic mandate positions it to address emerging AI-driven harms. **Way Forward:** The study recommends proactive compliance, greater transparency, lowering entry barriers, enhancing regulatory capacity, improving inter-agency coordination, and international collaboration to ensure a fair and innovation-friendly AI ecosystem. 21. India AI Governance The Ministry of Electronics and Information Guidelines (November 5, Technology (MeitY), under the IndiaAI Mission, 20205) unveiled the India AI Governance Guidelines, a comprehensive framework to ensure safe, inclusive,

Ī		and vacconsible AT adoption across sectors
		and responsible AI adoption across sectors.

# 4. Government Focus

India's approach to AI is marked by a balanced emphasis on inclusivity, innovation, and global leadership. The government has adopted a comprehensive strategy aimed at leveraging AI for economic growth, technological sovereignty, and societal transformation. With initiatives spanning across infrastructure development, regulatory frameworks, and skill-building, India is positioning itself as a global AI powerhouse while addressing unique domestic challenges.

## 4.1 IndiaAl Mission: Catalysing the Al Ecosystem

The IndiaAI Mission<sup>101</sup> stands as the cornerstone of the nation's AI strategy. This program aims to democratise access to AI, bolster innovation, and ensure the global competitiveness of Indian startups and researchers. Key focus areas include:

- **Tech Sovereignty:** Strengthening domestic AI capabilities to reduce reliance on foreign technologies.
- **Financial Support for Startups:** Providing pre-seed and seed-stage funding and fostering collaboration with incubators and industry stakeholders.
- **Skilled Employment Generation:** Creating opportunities that capitalise on India's demographic dividend while aligning with global AI demands.

# 4.2 Data as a Strategic Asset

The government recognises the critical role of data in powering AI systems and is actively building a repository of publicly accessible datasets. Initiatives like the #DataDaan<sup>102</sup> campaign encourages individuals and organisations to contribute diverse datasets to support AI innovation. Specific focus areas include:

- **Indic Language Models:** Developing AI systems tailored to India's multilingual population to bridge language barriers and ensure equitable digital access.
- **Value-Added Data Services:** Positioning India as a global leader in data annotation and enrichment, which could spark significant employment opportunities.

## 4.3 Global Engagements and Al Governance

India is actively shaping the global discourse on AI governance and policy through high-profile international engagements.

<sup>101</sup> IndiaAI https://indiaai.gov.in/

<sup>&</sup>lt;sup>102</sup>AI4India.org <u>https://www.ai4india.org/</u>

- Paris AI Summit 2025: Prime Minister Narendra Modi's participation will underscore India's leadership in AI innovation and governance. The aim is to align India's contributions with global initiatives to leverage AI for social equity and sustainability<sup>103</sup>.
- **World Economic Forum (WEF) 2025:** Led by Union Minister Ashwini Vaishnaw, the Indian delegation will emphasise collaboration in AI-driven sectors, green technologies, and sustainable economic growth<sup>104</sup>.

#### 4.4 Grassroots Empowerment and Inclusivity

The government's focus on grassroots development is reflected in initiatives like the "Panchayat se Parliament 2.0" event. Lok Sabha Speaker Om Birla highlighted the transformative potential of AI for grassroots governance, particularly in empowering women leaders in Panchayati Raj Institutions<sup>105</sup>. AI applications in this context aim to:

- Address local governance challenges.
- Improve service delivery by bridging language and resource gaps.
- Enhance participatory democracy through data-driven decision-making.

#### 4.5 Strengthening Al Infrastructure and Innovation

India is rapidly developing its AI infrastructure and fostering sectoral innovation to establish technological self-reliance. Key developments include:

- **Engagement with Leading Firms:** The Indian government has engaged 13 firms under the IndiaAI Mission to accelerate AI adoption and service offerings across key sectors, enhancing India's AI capabilities for the future. <sup>106</sup>
- **Semiconductor Manufacturing:** The establishment of India's first private semiconductor facility in Andhra Pradesh marks a milestone in India's tech ecosystem.<sup>107</sup>
- **AI in Niche Sectors:** The launch of VisionNXT by NIFT Mumbai exemplifies the integration of AI into specialised industries like fashion forecasting.<sup>108</sup>

<sup>103</sup> The Hindu Article on 'PM Modi to visit Paris for AI summit next month' <a href="https://www.thehindu.com/news/national/pm-to-visit-paris-next-month-french-president-announces/article69086571.ece">https://www.thehindu.com/news/national/pm-to-visit-paris-next-month-french-president-announces/article69086571.ece</a>

<sup>&</sup>lt;sup>104</sup>India News Network Article on 'India to showcase vision for AI, sustainability, and global leadership at WEF 2025' <a href="https://www.indianewsnetwork.com/en/20250112/india-to-showcase-vision-for-ai-sustainability-and-global-leadership-at-wef-2025">https://www.indianewsnetwork.com/en/20250112/india-to-showcase-vision-for-ai-sustainability-and-global-leadership-at-wef-2025</a>

The Economic Times Article on 'Adopt AI, innovation for people-oriented governance: Om Birla to women PRI representatives' <a href="https://www.msn.com/en-in/news/India/adopt-ai-innovation-for-people-oriented-governance-om-birla-to-women-pri-representatives/ar-AA1x32EP">https://www.msn.com/en-in/news/India/adopt-ai-innovation-for-people-oriented-governance-om-birla-to-women-pri-representatives/ar-AA1x32EP</a>

<sup>106</sup> Hindustan Times Article on 'Centre meets 13 firms for services under IndiaAl Mission' <a href="https://www.hindustantimes.com/india-news/centre-meets-13-firms-for-services-under-indiaai-mission-101736793715546.html">https://www.hindustantimes.com/india-news/centre-meets-13-firms-for-services-under-indiaai-mission-101736793715546.html</a>

Analytics India Magazine Article on 'India's 1st Private Semiconductor Facility to Come Up in Andhra Pradesh' <a href="https://analyticsindiamag.com/ai-news-updates/indias-1st-private-semiconductor-facility-to-come-up-in-andhra-pradesh/">https://analyticsindiamag.com/ai-news-updates/indias-1st-private-semiconductor-facility-to-come-up-in-andhra-pradesh/</a>

<sup>&</sup>lt;sup>108</sup> The Free Press Journal Article on 'NIFT Mumbai Showcases VisionNxt: India's First AI-Driven Fashion Forecasting Platform' <a href="https://www.freepressjournal.in/mumbai/nift-mumbai-showcases-visionnxt-indias-first-ai-driven-fashion-forecasting-platform">https://www.freepressjournal.in/mumbai/nift-mumbai-showcases-visionnxt-indias-first-ai-driven-fashion-forecasting-platform</a>

 AI Readiness Programs: Collaborative consultations hosted by MeitY and UNESCO are bolstering AI capabilities across critical sectors.<sup>109</sup>

#### 4.6. What Informs India's Al Governance Decisions

As evidence from above, India's approach to AI regulation is guided by three interlinked motivations that reflect a measured, context-aware, and pragmatic posture::

- Lack of Demonstrable Market Failure: Without empirical evidence of systemic harm or market distortions, imposing stringent compliance costs could stifle innovation unnecessarily.
- 2. **Scope within Existing Legal Frameworks**: Many of the foreseeable risks posed by AI can be managed by adapting and clarifying existing laws, rather than overhauling the regulatory landscape entirely.<sup>110</sup>
- 3. **Potential for Cost-Effective Alternatives**: Mechanisms such as self-regulation, voluntary commitments, and sector-specific guidance may provide more agile and proportionate responses to emerging challenges.

These motivations are echoed in the India AI Governance Guidelines, which advocates for a thorough evaluation of gaps in current legislation and reject the need for an omnibus AI law. 

The report also highlights the value of industry-led self-regulation and voluntary ethical commitments. 

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India's hesitation to rush into sweeping regulation is further informed by global lessons. The European Union's AI Act, with estimated compliance costs between €1.6 billion and €3.3 billion¹¹³, has sparked concerns over its potential to hinder innovation. For a developing economy like India—with the indigenous AI industry still being in its nascent stage of development—adopting similarly expansive regulation could be both impractical and counterproductive.

In contrast, India is embracing a model rooted in Digital Public Infrastructure (DPI) for AI<sup>114</sup>— a framework designed to embed public interest at the heart of AI development. Initiatives such as the release of the AI Kosha<sup>115</sup> and other government support schemes reflect a commitment to building accessible AI infrastructure that democratises innovation.

<sup>113</sup> ISACA'S article on 'The Potential Impact of the European Commission's Proposed AI Act on SMEs' <a href="https://www.isaca.org/resources/isaca-journal/issues/2023/volume-2/the-potential-impact-of-the-european-commissions-proposed-ai-act-on-smes">https://www.isaca.org/resources/isaca-journal/issues/2023/volume-2/the-potential-impact-of-the-european-commissions-proposed-ai-act-on-smes</a>

<sup>&</sup>lt;sup>109</sup>IndiaAI article on 'MeitY and UNESCO host stakeholder consultation on AI readiness in India at IIIT, Bengaluru' <a href="https://indiaai.gov.in/article/meity-and-unesco-host-stakeholder-consultation-on-ai-readiness-in-india-at-iiit-bengaluru">https://indiaai.gov.in/article/meity-and-unesco-host-stakeholder-consultation-on-ai-readiness-in-india-at-iiit-bengaluru</a>

<sup>110</sup> Carnegie Report 'India's Advance on AI Regulation' <a href="https://carnegieendowment.org/research/2024/11/indias-advance-on-ai-regulation?lang=en">https://carnegieendowment.org/research/2024/11/indias-advance-on-ai-regulation?lang=en</a>

<sup>111</sup> Report on AI Governance Guidelines Development <a href="https://indiaai.s3.ap-south-1.amazonaws.com/docs/subcommittee-report-dec26.pdf">https://indiaai.s3.ap-south-1.amazonaws.com/docs/subcommittee-report-dec26.pdf</a>

<sup>112</sup> ibid

Business Standard article on 'India will follow a DPI-like approach for artificial intelligence: Vaishnaw' <a href="https://www.business-standard.com/technology/tech-news/india-will-follow-a-dpi-like-approach-for-artificial-intelligence-yaishnaw-124070300905">https://www.business-standard.com/technology/tech-news/india-will-follow-a-dpi-like-approach-for-artificial-intelligence-yaishnaw-124070300905</a> 1.html

AIKosh https://aikosh.indiaai.gov.in/home

So far, India's comparative strength lies not in building large foundational models but in deploying AI at the application layer<sup>116</sup>—solving real-world challenges in healthcare, agriculture, education, financial access, and sustainability. Consequently, future regulations—particularly on issues like liability—will be calibrated to suit this deployment-driven ecosystem.

Currently, the regulatory approach is deliberately layered and sectoral, focusing oversight where risks are immediate and substantial. For instance, the recommendations of the Reserve Bank of India's FREE-AI committee<sup>117</sup> and SEBI's recent amendments<sup>118</sup> are designed to ensure accountability for AI use in the financial sector. This targeted strategy reflects a belief that regulation must follow function, prioritising safety and trust where AI is already making high-stakes decisions.

In essence, India's AI governance philosophy is anchored in pragmatism, inclusivity, and a deep sensitivity to local contexts. It recognises that the transformative power of AI must be harnessed not through hasty regulation, but through frameworks that are socially equitable, economically viable, and rooted in the nation's developmental realities. As AI technologies evolve, India is laying the groundwork, deliberately and purposefully, for a future that balances innovation with digital sovereignty, opportunity with dignity

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<sup>&</sup>lt;sup>116</sup> Financial Express article on 'India to see a surge in AI applications in 2025: Nasscom' <a href="https://www.financialexpress.com/business/digital-transformation-india-to-see-a-surge-in-ai-applications-in-2025-nasscomnbsp-3697715/">https://www.financialexpress.com/business/digital-transformation-india-to-see-a-surge-in-ai-applications-in-2025-nasscomnbsp-3697715/</a>

Economic Times article on 'RBI announces' FREE-AI' committee to develop AI framework' <a href="https://economictimes.indiatimes.com/news/economy/policy/rbi-announces-free-ai-committee-to-develop-ai-framework/articleshow/116684195.cms?from=mdr">https://economictimes.indiatimes.com/news/economy/policy/rbi-announces-free-ai-committee-to-develop-ai-framework/articleshow/116684195.cms?from=mdr</a>

SEBI Report <a href="https://www.sebi.gov.in/reports-and-statistics/reports/nov-2024/proposed-amendments-with-respect-to-assigning-responsibility-for-the-use-of-artificial-intelligence-tools-by-market-infrastructure-institutions-registered-intermediaries-and-other-persons-regulated-b-88470.html">https://www.sebi.gov.in/reports-and-statistics/reports/nov-2024/proposed-amendments-with-respect-to-assigning-responsibility-for-the-use-of-artificial-intelligence-tools-by-market-infrastructure-institutions-registered-intermediaries-and-other-persons-regulated-b-88470.html</a>

### 5. Al Impact Summit 2026

The AI Impact Summit 2026, hosted by the Government of India on February 19–20, 2026, at Bharat Mandapam in New Delhi, marks a defining moment in India's journey to shape the global AI discourse. Organised by the Ministry of Electronics and Information Technology (MeitY), the summit builds on a growing line of international AI gatherings, but with a distinctly Indian imprint: a commitment to safe, inclusive, and people-centric innovation. Guided by the overarching principles of *People, Planet, and Prosperity*, the summit is designed to demonstrate how AI can be meaningfully deployed to address pressing societal needs in healthcare, education, agriculture, climate resilience, governance, and sustainable development.

The event features a Research Symposium on AI and its societal impacts, extensive virtual consultations, and high-level sessions on the governance of emerging technologies. With participation expected from global leaders, policymakers, researchers, industry pioneers, and civil society, the summit aims to position India not only as a technological powerhouse but also as a normative leader in shaping the future of trustworthy AI.

#### Why the Summit Matters

The AI Impact Summit 2026 carries significance that extends far beyond a single event. It reflects India's ambition to showcase its innovation ecosystem, rooted in digital public infrastructure, indigenous technological capacity, and a vibrant startup landscape, and to demonstrate scalable, affordable, and context-aware AI solutions to the world. Importantly, the summit provides a platform for India to articulate the priorities of the Global South: equitable access to AI, capacity-building, technology transfer, and governance frameworks tailored to diverse socio-economic contexts rather than one-size-fits-all models.

In a world where AI is rapidly transforming economies, the summit strengthens India's voice in global standard-setting, ensuring that emerging rules reflect inclusivity, fairness, and developmental needs. It also underlines AI's role in advancing the Sustainable Development Goals, whether through precision agriculture, digital health infrastructure, climate adaptation tools, or next-generation education systems. The Research Symposium and accompanying initiatives deepen collaboration between academia, industry, and government, linking scientific inquiry with policymaking and accelerating the responsible adoption of AI.

By hosting the AI Impact Summit 2026, India signals its intention to lead with values, championing innovation that is open, safe, and aligned with democratic principles. It positions the country as a bridge between advanced AI economies and developing nations, offering a governance model that balances innovation with trust, growth with responsibility, and ambition with equity.

## 6. Challenges and Opportunities

The transformative potential of AI in India spans across economic growth, social inclusion, and the delivery of public services. However, achieving this potential comes with specific challenges that must be addressed to ensure sustainable and inclusive AI-driven development. The table below summarises these opportunities and their associated challenges.

Opportunities	Description	Related Challenges
Economic Growth and Digital Economy	AI has the potential to significantly contribute to India's economic growth, with a projected economic value of INR 33.8 lakh crore by 2030 <sup>119</sup> . AI will play a key role in achieving the \$1 trillion digital economy target by 2028, accounting for 20% of GDP.	include: - Skilled Workforce Gap:

<sup>&</sup>lt;sup>119</sup> ET CFO Article on 'India can tap AI's potential to boost economic growth, drive inclusive progress: Google' <a href="https://cfo.economictimes.indiatimes.com/news/economy/india-can-tap-ais-potential-to-boost-economic-growth-drive-inclusive-progress-google/114281101">https://cfo.economictimes.indiatimes.com/news/economy/india-can-tap-ais-potential-to-boost-economic-growth-drive-inclusive-progress-google/114281101</a>

# Social Transformation and Inclusion

AI can drive social equity by addressing pressing challenges in agriculture, healthcare, and education. For example, AI-powered apps like Agrostar<sup>120</sup> improve crop yields and promote sustainable practices, enhancing rural livelihoods.

Towards this, some key challenges include:

- **Data Availability and Bias:**Limited access to high-quality, representative datasets, particularly for rural and underserved areas.
- **Digital Divide:** Lack of digital literacy and connectivity in remote areas hinders the widespread adoption of AI-driven solutions.
- **Trust and Adoption:**Resistance to AI adoption due to fear of job displacement and mistrust in AI systems.

#### AI for Public Services

Public Leveraging AI for Digital Public Infrastructure (DPI)<sup>121</sup> can revolutionise governance and service delivery specifically in areas like healthcare, education, and financial inclusion.

Towards this, some key challenges include:

- **Interoperability Issues:** Ensuring seamless integration of AI solutions across diverse DPI platforms.
- **Ethical Concerns:** Balancing efficiency with transparency, accountability, and fairness in AIdriven public services.
- **Cybersecurity Risks:** Protecting sensitive public data from misuse and breaches.

 $<sup>120 \</sup> Agro \ Star \ \underline{https://agrostar.in/shop?language=mr\&state=maharashtra}$ 

<sup>&</sup>lt;sup>121</sup> WEF Report on AI for India 2023 <a href="https://www.weforum.org/stories/2025/01/ai-for-india-2030-blueprint-inclusive-growth-global-leadership/">https://www.weforum.org/stories/2025/01/ai-for-india-2030-blueprint-inclusive-growth-global-leadership/</a>

#### **Global Leadership** India's experience with large-scale Towards this, some key challenges in AI for Public initiatives like Aadhaar and UPI include: Good provides a strong foundation for becoming a global leader Global **Competitiveness:** leveraging AI for public services. 122 Ensuring that India's ΑI align with advancements international standards and remain competitive. - Collaboration Barriers: Need for stronger collaboration between government, industry, academia to create scalable global solutions. **Agricultural** AI can revolutionise agriculture Towards this, some key challenges **Sustainability** through predictive analytics, include: resource optimisation, and realtime monitoring, leading - Farmer Awareness: Limited to knowledge among farmers about increased productivity and sustainability. 123 AI-powered tools and technologies. - Resource Constraints: High costs of AI-enabled tools and limited access to credit for small farmers. - Scalability Issues: Adapting AI solutions for diverse and fragmented agricultural practices in India.

<sup>122</sup> Business Satndard article on 'India will follow a DPI-like approach for artificial intelligence' <a href="https://www.business-standard.com/technology/tech-news/india-will-follow-a-dpi-like-approach-for-artificial-intelligence-vaishnaw-124070300905\_1.html">https://www.business-standard.com/technology/tech-news/india-will-follow-a-dpi-like-approach-for-artificial-intelligence-vaishnaw-124070300905\_1.html</a>

<sup>&</sup>lt;sup>123</sup> Smart Agricultural Technology 7 (2024) 100416, Sustainable AI-based production agriculture: Exploring AI applications and implications in agricultural practices

Boosting the Startup Ecosystem	AI-driven innovation can fuel the growth of startups in sectors like fintech, edtech, agritech, and	, ,
	healthtech.	- <b>Regulatory Complexity:</b> Ambiguity in AI-related policies and compliance requirements.

#### 6.1 Analysis and Recommendations

#### Developing Human Capital

Bridging the skilled workforce gap is paramount to fostering an AI-driven ecosystem in India. This necessitates comprehensive upskilling and reskilling initiatives, including the development of AI-specific educational curricula and vocational training programs.<sup>124</sup> Partnerships with academic institutions and private enterprises can further ensure the alignment of training with industry demands, enhancing employability and driving innovation.

#### Strengthening AI Infrastructure

Building robust computational infrastructure is essential for AI adoption at scale. Strategic investments in AI-ready infrastructure, such as high-performance computing facilities and cloud ecosystems, can enable rapid model development and deployment. Additionally, incentivising innovation through grants, subsidies, and tax benefits for AI-focused startups and enterprises can further catalyse progress in this domain.

#### Establishing Policy and Ethical Frameworks

The development of clear and adaptive AI governance frameworks is critical to balancing innovation with ethical considerations. Policies must address issues such as privacy, fairness, accountability, and transparency while fostering trust in AI systems. Regular audits, adherence to international best practices, and the establishment of independent oversight bodies can further reinforce ethical AI deployment<sup>126</sup>.

#### Promoting Digital Inclusion

Expanding internet connectivity and promoting digital literacy are fundamental to bridging the digital divide, particularly in rural and underserved areas. Initiatives such as public-private partnerships for last-mile connectivity, low-cost internet solutions, and targeted digital literacy campaigns can ensure equitable access to AI-driven opportunities.

Deloitte's, 'Advancing India's AI Skills: Interventions and programmes needed.'

<sup>125</sup> Niti Aayog's, AIRAWAT: AI Specific Cloud Computing Infrastructure

<sup>126</sup> By Amlan Mohanty and Shatakratu Sahu, November 21, 2024, India's Advance on AI Regulation

#### • Encouraging Collaboration

Collaboration between the government, academia, startups, and industry is vital for accelerating AI innovation and fostering knowledge-sharing. Multi-stakeholder platforms can facilitate joint research, technology transfer, and co-development of solutions tailored to India's unique challenges.

# 7. India and the Global AI regulatory Landscape

Across the globe, countries are carving distinct regulatory paths for artificial intelligence, reflecting their political systems, societal values, and strategic priorities. From the European Union's sweeping, comprehensive legislation to China's technology-specific rules and the voluntary commitments in the United States, a common thread emerges: policymakers worldwide agree on the dual imperative, harness AI's transformative potential while proactively addressing its risks. India's stance is no different.

India has broadly aligned itself with a "pro-innovation" approach to AI governance. It seeks to unlock the potential of AI technologies while keeping an eye on emerging risks. This philosophy is reflected in key policy statements, such as the G20 Ministerial Declaration under India's presidency<sup>127</sup>.

Globally, the development of AI strategies has outpaced the implementation of binding laws. Many countries have released vision documents and national AI strategies, but few legislative proposals have translated into enforceable frameworks. India's trajectory mirrors this pattern. In 2018, NITI Aayog released the 'National Strategy for Artificial Intelligence' accomprehensive and forward-looking document. However, it remains a recommendation without formal cabinet endorsement.

Like other nations, India is investing significantly in AI infrastructure. Countries such as Canada and China have unveiled large-scale financial packages, \$2.4 billion and \$47.5 billion respectively<sup>130</sup>, for AI and semiconductor development. The U.S. launched its Stargate initiative with much fanfare<sup>131</sup>. In this landscape, India's recent budgetary allocation of ₹2,000 crore to the IndiaAI Mission, nearly one-fifth of its total outlay of ₹10,371 crore, signals a serious commitment, representing a 56% increase from the previous year's budget estimates.<sup>132</sup> Another key shift is the focus on AI for social good. India is increasingly emphasising the use of AI to address developmental challenges. The country is also pursuing a Digital Public Infrastructure (DPI)-like model for AI deployment, emphasising accessibility and public value.

https://hai.stanford.edu/ai-index/2025-ai-index-report/policy-and-governance

https://hai.stanford.edu/ai-index/2025-ai-index-report/policy-and-governance

<sup>127</sup> G20 New Delhi Leaders' Declaration <a href="https://www.mea.gov.in/Images/CPV/G20-New-Delhi-Leaders-Declaration.pdf">https://www.mea.gov.in/Images/CPV/G20-New-Delhi-Leaders-Declaration.pdf</a>

<sup>&</sup>lt;sup>128</sup> The 2025 AI Index Report

National Strategy for Artificial Intelligence-AI for All (2018) <a href="https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf">https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf</a>

The 2025 AI Index Report

<sup>&</sup>lt;sup>131</sup>BBC article on 'Tech giants are putting \$500bn into 'Stargate' to build up AI in US' https://www.bbc.com/news/articles/cy4m84d2xz2o

<sup>&</sup>lt;sup>132</sup> The Hindu article on 'Union Budget 2025: Artificial Intelligence related schemes receive significant increase in allocations'

https://www.thehindu.com/data/union-budget-2025-artificial-intelligence-related-schemes-receive-significant-increase-in-allocations/article69163704.ece

The emergence of China's DeepSeek has also marked a broader shift, from a focus on AI applications to the development of foundational models and the strengthening of indigenous capabilities in India.<sup>133</sup>

On the regulatory front, India, much like the U.S.<sup>134</sup>, is assessing whether existing legal frameworks can be extended to cover AI rather than rushing into entirely new laws.

The AI safety conversation is rapidly becoming global. In 2024, countries began launching AI safety institutes to coordinate risk mitigation. The U.S. and U.K. were first movers, establishing institutes following the inaugural AI Safety Summit (though the U.S. initiative now faces uncertainty following an executive order rollback). By May 2024, the AI Seoul Summit saw pledges for similar institutions in Japan, France, Germany, Italy, Singapore, South Korea, Australia, Canada, and the EU.<sup>135</sup>

India, too, has announced the creation of the Artificial Intelligence Safety Institute (AISI). Rather than relying on a traditional secretariat, AISI is envisioned as a virtual hub connecting academia and industry across the country, a decentralised model aligned with India's strengths in digital innovation.<sup>136</sup>

Simultaneously, globally, there has been an interest in understanding the systemic risks associated with the technology first, before rushing to regulate. The Competition Commission of India (CCI)recently released its market study to understand consolidation trends in the AI ecosystem<sup>137</sup>, an effort that mirrors investigations by regulators in other jurisdictions.

While India is not in a rush to enact sweeping AI regulations, there is a growing focus on specific use cases. This mirrors China's vertical, sector-specific approach to AI governance, shaped by national security and economic concerns. China has already introduced rules aimed at curbing the risks posed by AI, such as deepfakes, misinformation, and algorithmic bias—particularly on digital platforms.

India is following suit. Deepfake regulation has emerged as a policy concern, as noted in the AI subcommittee report.<sup>139</sup> Issues of content provenance are being actively discussed. At the same time, India is pursuing sectoral oversight similar to the U.S. model. The Reserve Bank

https://carnegieendowment.org/posts/2024/06/the-importance-of-ai-safety-institutes?lang=en

<sup>133</sup> Niti Aayog discussion paper: 'The state of AI – understanding the recent AI shifts and implications' <a href="https://www.niti.gov.in/sites/default/files/2025-02/NITI%20Aayog%20Discussion%20Paper%20-%20Latest%206%20Feb%2025.pdf">https://www.niti.gov.in/sites/default/files/2025-02/NITI%20Aayog%20Discussion%20Paper%20-%20Latest%206%20Feb%2025.pdf</a>

<sup>134</sup> Bipartisan House Task Force Report on Artificial Intelligence, December 2024 <a href="https://www.speaker.gov/wp-content/uploads/2024/12/AI-Task-Force-Report-FINAL.pdf">https://www.speaker.gov/wp-content/uploads/2024/12/AI-Task-Force-Report-FINAL.pdf</a>

<sup>&</sup>lt;sup>135</sup>Carnegie article on 'The Importance of AI Safety Institutes'

<sup>136</sup> The Hindu article on 'India's Artificial Intelligence Safety Institute to work virtually across institution, officials say' <a href="https://www.thehindu.com/sci-tech/technology/indias-artificial-intelligence-safety-institute-to-work-virtually-across-institution-officials-say/article69191949.ece">https://www.thehindu.com/sci-tech/technology/indias-artificial-intelligence-safety-institute-to-work-virtually-across-institution-officials-say/article69191949.ece</a>

<sup>137</sup> CCI Request for proposal to Conduct Market Study on Artificial Intelligence and Competition <a href="https://www.cci.gov.in/images/whatsnew/en/tendernotice-1-11713759672.pdf">https://www.cci.gov.in/images/whatsnew/en/tendernotice-1-11713759672.pdf</a>

EuroHub4Sino's article on *Comparative analysis of AI development strategies: A study of China's ambitions and the EU's regulatory framework*. <a href="https://eh4s.eu/publication/comparative-analysis-of-ai-development-strategies-a-study-of-chinas-ambitions-and-the-e-us-regulatory-framework">https://eh4s.eu/publication/comparative-analysis-of-ai-development-strategies-a-study-of-chinas-ambitions-and-the-e-us-regulatory-framework</a>

<sup>&</sup>lt;sup>139</sup>Report on AI governance guidelines development. <a href="https://indiaai.s3.ap-south-1.amazonaws.com/docs/subcommittee-report-dec26.pdf">https://indiaai.s3.ap-south-1.amazonaws.com/docs/subcommittee-report-dec26.pdf</a>

of India (RBI) has launched the FREE-AI Committee, <sup>140</sup> while the Securities and Exchange Board of India (SEBI) has amended its regulations to enhance accountability in the use of AI tools by regulated entities—Market Infrastructure Institutions, registered intermediaries, and more<sup>141</sup>.

In sum, while the legislative landscape remains fluid, India's evolving approach to AI governance is increasingly aligned with global best practices—pro-innovation, sector-sensitive, and rooted in public value.

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<sup>&</sup>lt;sup>140</sup> CNBC-TV18 *RBI forms panel to regulate AI use in fintech, banking, financial sector under free AI initiative*. <a href="https://www.cnbctv18.com/business/finance/rbi-forms-panel-to-regulate-ai-use-in-fintech-banking-financial-sector-under-free-ai-initiative-19529960.htm">https://www.cnbctv18.com/business/finance/rbi-forms-panel-to-regulate-ai-use-in-fintech-banking-financial-sector-under-free-ai-initiative-19529960.htm</a>

<sup>&</sup>lt;sup>141</sup> SEBI Report <a href="https://www.sebi.gov.in/reports-and-statistics/reports/nov-2024/proposed-amendments-with-respect-to-assigning-responsibility-for-the-use-of-artificial-intelligence-tools-by-market-infrastructure-institutions-registered-intermediaries-and-other-persons-regulated-b-88470.html">https://www.sebi.gov.in/reports-and-statistics/reports/nov-2024/proposed-amendments-with-respect-to-assigning-responsibility-for-the-use-of-artificial-intelligence-tools-by-market-infrastructure-institutions-registered-intermediaries-and-other-persons-regulated-b-88470.html</a>

#### 8. Conclusion

Positioned within the broader global discourse, India's AI trajectory reflects a dual commitment: harnessing the transformative potential of AI for inclusive growth while addressing the ethical, social, and infrastructural challenges inherent in its implementation.

India's AI journey is characterised by a focus on leveraging its demographic and linguistic diversity, robust digital public infrastructure, and innovation-driven startup ecosystem. The IndiaAI Mission and related initiatives underscore a strategic emphasis on democratising AI access, fostering innovation, and ensuring global competitiveness. However, this journey is not without its complexities. The challenges of digital inclusion, ethical governance, and infrastructure gaps require sustained and targeted interventions.

This report serves as the foundation for subsequent analyses, including comparative studies with the regulatory approaches of other countries. Such evaluations will illuminate best practices and gaps, offering actionable insights for a harmonised global AI governance framework. As this series progresses, it will continue to explore how India's AI landscape evolves in response to global challenges and opportunities, fostering a future where AI serves as a catalyst for equitable and sustainable development.

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