



By ICMA Research and Publications Department

Pakistan's National AI Policy 2025: Roadmap to Digital Transformation

Introduction

Pakistan's vision for Artificial Intelligence began in 2018 with the Presidential Initiative for Artificial Intelligence and Computing (PIAIC), launched by President Dr. Arif Alvi to build grassroots skills in AI and emerging technologies through mass student enrollment. It progressed in May 2023 with the Draft National AI Policy, which emphasized ethical adoption, inclusivity, funding mechanisms, and research infrastructure. In July 2025, Pakistan approved its first National AI Policy, presenting a comprehensive strategy to develop a complete AI ecosystem by 2030 through the training of one million professionals, the development of local AI products and research, the establishment of startups, strengthened governance and data security, and projected economic gains of up to 12% of GDP, along with the creation of 3.5 million AI-linked jobs.

Pakistan has unveiled its first National Artificial Intelligence Policy 2025, marking a pivotal step in the country's digital transformation journey. The launch comes at a crucial moment, as highlighted by the State Bank of Pakistan: IT and IT-enabled services exports rose to \$3.8 billion in FY25, up 18% from the previous year, with the freelance and remote work sector surging 90% to \$779 million. With 116 million broadband users (45.7% penetration) and a youthful demographic—64% of the population under 30—Pakistan is uniquely positioned to harness AI for inclusive growth. Looking ahead, the government has set an ambitious target of \$15 billion in IT exports by 2030, underpinned by structural reforms and digital adoption.

Roadmap and Pillars of Pakistan's AI Policy

The AI Policy provides a structured roadmap to achieve this vision. It establishes a National AI Fund (30% of Ignite's R&D budget), sets targets to train one million people by 2027 and achieve 90% public awareness by 2026, and creates Centers of Excellence in AI to drive research, incubation, and training. Built on six pillars—Innovation, Skills, Secure Systems, Sectoral

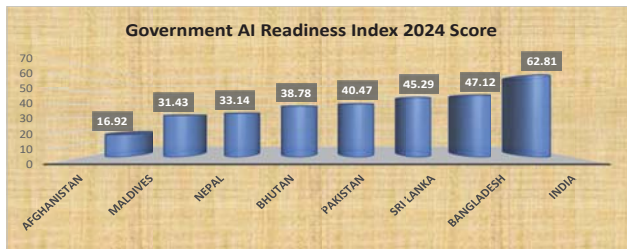
Transformation, Infrastructure, and International Partnerships—the policy embeds strong ethical and security guidelines, aligning with the UN Sustainable Development Goals and the AI for Good initiative. By introducing this framework, Pakistan not only closes the strategic gap with South Asian peers such as India, Sri Lanka, and Bangladesh but also lays the foundation for a responsible, inclusive, and sustainable AI-driven future.

Pakistan's National AI Policy is built on six strategic pillars that turn ambitions into actionable plans:

- 1) **AI Innovation Ecosystem** – National AI Fund (30% of Ignite's R&D budget) and AI Centers of Excellence connecting academia, startups, and industry.
- 2) **Awareness & Readiness** – Training 200,000 people annually, preparing 10,000 AI trainers, offering 3,000 postgraduate scholarships yearly, with gender and disability inclusion.
- 3) **Secure AI Environment** – Data privacy safeguards, AI-integrated cybersecurity, generative AI guidelines, human oversight, and regulatory sandboxes.
- 4) **Transformation & Evolution** – AI in healthcare, agriculture, governance, and education, tracked via a national Ranking Management System (RMS).
- 5) **AI Infrastructure** – High-performance computing, national datasets, and AI cloud services for at least 100 institutions.
- 6) **International Partnerships** – Participation in global AI forums, bilateral/multilateral cooperation, and alignment with international standards.

The policy is operational, not just aspirational, with measurable goals such as 1,000 local AI products and 50,000 civic AI projects within five years. By focusing on health, education, agriculture, and governance, it aims to improve service delivery and productivity. AI is projected to add \$10–\$20 billion (5–10% of GDP) by 2030, positioning Pakistan as a competitive, knowledge-based economy while keeping pace with South Asian peers like India, Sri Lanka, and Bangladesh.

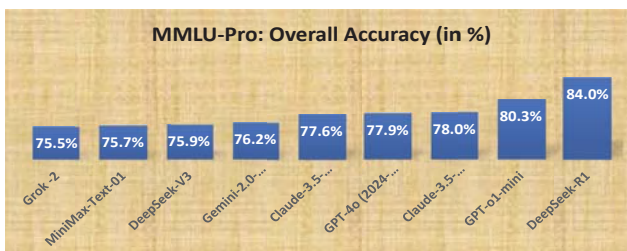
Government AI Readiness Index 2024 (South & Central Asia)



Source: Government AI Readiness Index 2024

The Government AI Readiness Index 2024 shows significant variation across South Asia, with India (62.81) leading the region, followed by Bangladesh (47.12) and Sri Lanka (45.29) in the mid-range. Pakistan (40.47) ranks below these peers but ahead of Bhutan (38.78), Nepal (33.14), and the Maldives (31.43), while Afghanistan (16.92) remains the least prepared. Since higher scores indicate better readiness, Pakistan's position in the lower-middle tier highlights the need to strengthen institutional and technological capacity. However, the recent launch of Pakistan's first National AI Policy in 2025 marks an important step forward, aiming to improve governance, expand digital infrastructure, and enhance AI skills development—measures that, if effectively implemented, could boost Pakistan's readiness in future assessments.

Global AI Benchmarks: MMLU-Pro (Overall Accuracy)



Source: Artificial Intelligence Index Report 2025

These benchmarks demonstrate the rapid advancement of frontier AI models globally, with accuracy now exceeding 80% in complex reasoning tasks. This highlights the urgent need for Pakistan to invest in local AI innovation and skill development to reduce reliance on foreign technologies.

National AI Policy 2025: Challenges and Implementation

- **Data Protection & Cross-Border Flows** – Pakistan lacks a comprehensive, GDPR-style data law. Drafts foresee heavy localization and a Data Protection Commission, both critical for AI datasets, model training, and government enterprise cloud initiatives.
- **Energy & Compute Economics** – Plans to power AI data centers with “surplus” electricity face tariff,

reliability, and siting challenges. Converting allocations into cost-effective, low-latency compute is complex.

- **Budget Execution & Pipeline Readiness** – Flagship AI initiatives often appear as “unapproved” or provisional in federal plans. PC-I preparation, approvals, and procurement capacity will determine implementation pace.
- **Public-Interest Safeguards** – Civil-society reviews flag risks including surveillance, algorithmic bias, due-process gaps, and the gender digital divide, which require rules, audits, and redress mechanisms.
- **Standards, Safety, and Ethics** – Gaps in data quality and availability, as well as ethical oversight, highlight the need for ISO/IEC, OECD/UNESCO standards, testing labs, and regulatory competence.
- **Skills & Institutional Readiness** – Ministries and regulators (PEMRA, PTA, HEC, FBR) need funded positions, clear job descriptions, and comprehensive training programs beyond pilots to ensure effective AI adoption.
- **Legal/Regulatory Vacuum in High-Risk Uses** – AI applications in justice, policing, and biometric systems are advancing faster than sector-specific safeguards, creating litigation and rights risks unless NAIP-2025 is complemented with sectoral rules.

The policy seeks to strengthen digital infrastructure with 2,000 MW of surplus electricity for AI data centers and initiatives such as the National AI Fund, Centers of Excellence, and large-scale skills development. However, the absence of a comprehensive data protection law and restrictions on cross-border data flows remain key hurdles for effective implementation and global integration.

Conclusion

Pakistan's first AI policy provides a strong foundation with defined targets, governance frameworks, and ethical guardrails. Supported by growing IT exports, expanding connectivity, and youth engagement, the country is well-positioned to elevate its AI ecosystem. The critical next step lies in execution—resourcing national institutions, setting measurable milestones, and building accountability structures. If implemented effectively, this policy could transform Pakistan's digital ambitions into inclusive, AI-driven national progress.

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