

# From Data Governance to AI Governance in the CEMAC:

## Integrating AU Data Policy Framework and Data Justice



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# About AfroLeadership

Founded in 2010, AfroLeadership is a pan-African civil society organization that strongly defends and promotes human rights, internet rights, digital rights, data rights, open data, transparency, accountability and citizen participation. Since an internet shutdown took place in Cameroon 4 years ago, AfroLeadership has been committed to developing a very concrete civic competence by leading the Coalition for Digital Rights, to fight for meaningful internet connectivity, against misinformation and hate speech online and offline.

For years and in partnership with various global human rights actors, AfroLeadership has been promoting human rights globally through the **Civic Charter**, a framework for peoples' participation, based on our common humanity and universally accepted freedoms and principles. It provides a framework for people's participation that identifies their rights in existing international law and agreements: freedom of expression, freedom of information. Freedom of assembly and association.

To empower more young people in Africa, for accountable and responsible behavior in the new digital world, **AfroLeadership and Good of All** have entered into an educational partnership to promote the principles of universal rights as defined in the Universal Declaration of Human Rights, as an antidote to political, tribal, ethnic and religious divisions, as well as hate speech and disinformation that continue to flourish. threatening human rights across the African continent. This partnership will support the development with **Games for Good**, educational game modules and other creative uses of gaming technology that advance the cause of universal rights. He will also promote the **McGraw-Hill Education K12** program on universal rights, particularly through the non-violence principles of **Gandhi, Mandela and Martin Luther King**.

AfroLeadership is a founding member of **MyData Global**, a global network of businesses, governments, experts and citizens advocating for a human-centered data economy. It sits on the steering committee of MyData Global and leads MyData Global in Africa, to strengthen data governance and privacy in hubs in Africa. In 2021, AfroLeadership became a partner of the African **Data Leadership Initiative (ADLI)**

**led by Future Stare, the United Nations Economic Commission for Africa (ECA) and Smart Africa.**

AfroLeadership is also a partner of the African Smart Cities Investment Summit (ASCIS), and leads the civil society track with the goal of promoting human rights and digital rights for smart cities projects in African Cities. In this light, AfroLeadership is working with the Cities Coalition for Digital Rights (CC4DR), a global network of cities advocating for a more leading role of cities in protection and ensuring digital rights of city dwellers are embedded in cities' technologies projects.

AfroLeadership is working with the Agence Africaine et Francophone de l'Intelligence Artificielle (AFRIA), to promote artificial intelligence that respects human rights and ethics in Africa and globally. AfroLeadership stands as the central African regional host of AFRIA and leads its activities in the region.



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# Glossary

**Artificial intelligence system:** a system powered by machines that, with specific or general goals, interprets inputs to produce outputs such as predictions, content, recommendations, or decisions that can impact both physical and virtual settings. These systems vary in their autonomy and ability to adapt post-deployment.<sup>1</sup>

**AI Governance:** refers to the guardrails that ensure AI tools and systems are and remain safe and ethical. It establishes the frameworks, rules and standards that direct AI research, development and application to ensure safety, fairness and respect for human rights.<sup>2</sup>

**Data Governance:** the set of processes, roles, policies, and standards that ensure the proper management of an organization's data throughout its lifecycle. It's essentially about making sure data is accurate, consistent, accessible, secure, and compliant with regulations.<sup>3</sup>

**Data Justice:** a set of principles that ensure data is collected, used, and shared in a way that is fair, equitable, and respects the rights of individuals and communities.<sup>4</sup> It is concerned with addressing the power imbalances that can arise from data collection and usage, and seeks to ensure that data benefits everyone, not just those in positions of power.

**Data Localization:** the practice of ensuring that data is stored within the geographic boundaries of a specific country or region.

**Data Sovereignty:** the principle that data is governed by the legal and regulatory frameworks of the country where it is collected or processed.

**Foundation model:** A large-scale AI model, often containing billions of parameters, that serves as a versatile base for various downstream tasks. These models are trained on extensive datasets, including both labelled and unlabelled data.

**Mis/disinformation:** Misinformation refers to the unintentional spread of false information, while disinformation involves the deliberate dissemination of false information with the intent to deceive.<sup>5</sup>

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<sup>1</sup> "OECD AI Principles overview", Organisation for Economic Co-operation and Development (OECD) AI Policy Observatory, 2023, <https://oecd.ai/en/ai-principles>

<sup>2</sup> <https://www.ibm.com/topics/ai-governance>

<sup>3</sup> <https://cloud.google.com/learn/what-is-data-governance>

<sup>4</sup> Dencik, L. & Sanchez-Monedero, J. (2022). Data justice. *Internet Policy Review*, 11(1). <https://doi.org/10.14763/2022.1.1615>

<sup>5</sup> World Economic Forum, Toolkit for Digital Safety Design Interventions and Innovations: Typology of Online Harms, 2023, <https://www.weforum.org/publications/toolkit-for-digital-safety-design-interventions-and-innovations-typology-of-online-harms/>

**Responsible AI:** AI that is designed and implemented in a manner that maximizes benefits while minimizing risks to individuals, society, and the environment. It encompasses principles such as robustness, transparency, explainability, fairness, and equity.<sup>6</sup>

**Transparency:** The practice of openly providing information about the decisions, choices, and processes involved in the development and functioning of AI models, including the sources, data, and model details, to facilitate informed decision-making.

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<sup>6</sup> World Economic Forum, The Presidio Recommendations on Responsible Generative AI, 2023, <https://www.weforum.org/publications/the-presidio-recommendations-on-responsible-generative-ai/>

# Executive Summary

The digital revolution sweeping across Sub-Saharan Africa, including the Economic and Monetary Community of Central Africa (CEMAC), marks a transformative era with significant data generation and utilization. Advances in Artificial Intelligence (AI) and data-driven technologies promise economic growth, improved public services, and better quality of life. However, this rapid digital transformation necessitates robust data governance policies to manage data collection, storage, processing, and sharing, ensuring benefits while minimizing potential harms.

In CEMAC, particularly in Cameroon, the Central African Republic, and Gabon, effective data governance is crucial. The region's socio-political and economic diversity, along with its rich ethnic composition, presents unique challenges in managing data equitably. The African Union (AU) has established a comprehensive data policy framework to guide member states in leveraging data and AI technologies responsibly.<sup>7</sup>

Despite these efforts, the adoption of this framework within CEMAC is delayed. Some member states lack a basic regulatory framework for personal data, creating a critical governance gap that could hinder the equitable distribution of technology's benefits and exacerbate inequalities. Principles of Data Justice are essential and should be integrated with the AU Data Policy Framework to ensure the digital revolution benefits all, particularly marginalized communities.

## Key Findings and Insights

- 1. Current State of Data Governance in CEMAC:** The zone is still in the early stages of developing comprehensive data governance frameworks. However, there were some developments and initiatives:
  - **Data Protection Laws:** Some CEMAC countries had started to implement or update data protection laws. For example, Gabon has a data protection law in place<sup>8</sup>, and other countries are in various stages of drafting or implementing similar legislation.

<sup>7</sup> <https://au.int/sites/default/files/documents/42078-doc-AU-DATA-POLICY-FRAMEWORK-ENG1.pdf>

<sup>8</sup> <https://www.africanobservatory.ai/social/new-ai-rules-in-gabons-personal-data-protection-law>

- **Digital Transformation Strategies:** Several CEMAC countries have initiated digital transformation strategies like Cameroon<sup>9</sup> and Gabon<sup>10</sup>, which often included elements of data governance.
- **Capacity Building:** There are efforts to build capacity in digital skills, including data science, through partnerships with private sector companies and international organizations such as AIMS<sup>11</sup>.
- **Infrastructure Development:** Improving digital infrastructure is a focus for many CEMAC countries, as this is crucial for effective data governance<sup>12</sup>.
- **International Participation:** CEMAC countries were increasingly participating in international forums on data and AI governance, including initiatives by the African Union and United Nations bodies.
- **Private Sector Initiatives:** Some private sector companies and startups in the region were beginning to adopt data governance practices, often driven by compliance requirements for international partnerships.

2. **Challenges preventing the development of a Data Governance Policy:** The region faces significant challenges in implementing robust data governance frameworks, influenced by a variety of technical, economic, and sociopolitical factors. These challenges hinder the development and integration of effective data governance practices, necessary for harnessing the benefits of digital transformation.

- **Limited Digital Infrastructure:** Inadequate broadband connectivity, unreliable power supply, and uneven distribution of digital resources between urban and rural areas.
- **Lack of Technical Expertise:** A shortage of skilled professionals in data science, cybersecurity, and policy development, coupled with low literacy levels among populations.
- **Financial Constraints:** Limited budgets for digital initiatives, with other development priorities often taking precedence.

<sup>9</sup> <https://projects.worldbank.org/en/projects-operations/procurement-detail/OP00276743>

<sup>10</sup> <https://www.worldbank.org/en/news/press-release/2024/01/02/gabon-the-world-bank-boost-its-support-to-accelerate-digital-transformation>

<sup>11</sup> <https://aims-cameroon.org/>

<sup>12</sup> <https://blogs.worldbank.org/en/digital-development/data-better-lives-cameroon>

- **Regulatory Fragmentation:** Inconsistent data protection laws across CEMAC countries and difficulties in harmonizing regulations due to differing national priorities.
  - **Lack of Regional Coordination:** Challenges in establishing a unified approach to data governance and limited mechanisms for sharing best practices among member states.
3. **Importance of integrating Data Justice:** Integrating Data Justice principles—emphasizing power, equity, access, identity, participation, and knowledge—into AI governance can prevent the exacerbation of existing inequalities and ensure that technological advancements are inclusive and fair. This integration is vital for promoting socio-economic development while safeguarding against potential ethical and security risks associated with AI. A tailored AI governance framework that incorporates these considerations will help CEMAC countries navigate the complexities of digital transformation and achieve sustainable growth.
  4. **Possible jump to AI Governance:** AI offers immense potential for socio-economic development across various sectors including healthcare, education, and public administration. However, without robust governance, AI poses risks such as exacerbating inequalities and introducing new ethical and security challenges.

## Key Recommendations

- **Culturally Sensitive AI Development:** Ensure that AI systems respect and incorporate the cultural diversity of the region, creating inclusive technologies that align with regional values.
- **Inclusive Policy:** Policymakers should engage diverse stakeholders, including marginalized communities, in the creation of data governance policies. This participatory approach ensures that policies reflect the needs and concerns of all groups, promoting equity and inclusion.
- **Equitable AI Access:** Develop strategies to promote equitable access to AI technologies across all regions, particularly focusing on bridging the digital divide between urban and rural areas.

- **Privacy-Enhancing Technologies:** Implement guidelines for responsible data collection and use in AI systems, emphasizing the protection of individual privacy through privacy-enhancing technologies.
- **Algorithmic Transparency and Accountability:** Require explainable AI in critical decision-making processes and establish independent bodies to audit AI systems, ensuring compliance with data justice principles.
- **Capacity Building and Data Literacy:** Invest in education and training programs to build local expertise in AI and promote data literacy among the public, enabling informed participation in the digital economy.
- **Cross-Border Data Governance:** Establish ethical frameworks for cross-border data sharing, balancing data localisation and data sovereignty with the benefits of regional integration and collaboration.
- **AI for Social Good:** Prioritize AI projects that address social and economic challenges, particularly those aligned with sustainable development goals, to maximize the technology's positive impact.
- **AI-specific Governance Bodies:** Develop centralized and regional bodies to oversee AI implementation, ensuring adherence to ethical standards and regulatory compliance. Existing authorities/institutions can be leveraged to mutualise efforts. However, mandate should be clearly defined to avoid any dispute and optimise resources.
- **Interoperability:** to avoid siloed data that cannot be easily combined to develop innovative solutions. Each specific guideline or policy should speak to each other.
- **Continuous Monitoring and Evaluation:** Implement mechanisms for regular assessment of AI systems' impact, ensuring that emerging data justice concerns are addressed and that AI technologies continue to align with societal needs
- **Harmonizing Legal Frameworks:** Update and harmonize existing legal frameworks to reflect the new realities introduced by AI technologies, focusing on privacy, data protection, data justice, and ethical standards.
- **Building Trust:** by ensuring political and operational independence of regulatory bodies and strong enforcement framework.

# I. Introduction

## I.1. Context and Background

In today's rapidly evolving global landscape, data and data-driven technologies including AI have become pivotal to economic and societal transformation. These technologies offer unprecedented capabilities in processing vast amounts of information, providing insights that drive decision-making and innovation. In Africa, and particularly within the CEMAC region, embracing these technologies could be transformative, offering new avenues for economic diversification and improved governance.

The CEMAC comprises six countries: Cameroon, Central African Republic, Chad, Equatorial Guinea, Gabon, and the Republic of Congo. This region, characterized by its rich natural resources and shared economic and monetary policies, stands at a pivotal point where technology can significantly influence its developmental trajectory.

Within CEMAC, data governance frameworks are in varying stages of development, with some countries more advanced in their data regulatory environments than others. This disparity presents both a challenge and an opportunity for harmonizing policies across the region to leverage collective strengths.

## I.2 Challenges and Opportunities

As Sub-Saharan Africa (SSA) region in general, many parts of the CEMAC region suffer from underdeveloped digital infrastructure, which is a critical barrier to the adoption and effective use of data-driven technologies.<sup>13</sup> This includes insufficient broadband access, limited availability of digital services<sup>14</sup>, and outdated IT systems within public institutions. In addition, there is a lack of uniformity in data protection laws and regulations across CEMAC countries, which complicates the establishment of a cohesive data governance framework. These disparities can hinder cross-border data

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<sup>13</sup> <https://www.worldbank.org/en/results/2024/01/18/digital-transformation-drives-development-in-afe-afw-africa>

<sup>14</sup> <https://www.worldbank.org/en/results/2023/06/26/from-connectivity-to-services-digital-transformation-in-africa>



flows and complicate the compliance landscape for businesses and government agencies operating regionally. Another significant challenge is the varying levels of digital literacy among the population<sup>15</sup> and within government entities. This gap limits the ability of individuals and organizations to engage with AI technologies effectively and ethically. Finally, but not the last, a challenge not to be underestimated is funding and investment. Investment in data-driven technologies is relatively low, compounded by a general lack of awareness among investors about the potential of these technologies. As a matter of fact, over 50% of African AI startups are in 7 countries (South Africa, Kenya, Nigeria, Egypt, Uganda, Ghana, and Senegal)<sup>16</sup>. Only the CEMAC zone is lacking. Additionally, public sector investment in AI research and development is not yet on the agenda.

Despite all the above-mentioned challenges, there are several opportunities that need to be considered. First, if properly implemented, data governance can drive economic diversification by introducing new sectors and enhancing the efficiency of existing industries such as agriculture, mining, and services. Data-driven technologies can optimize supply chains, improve market access for small and medium enterprises, and create new business models. Secondly, data-driven technologies offer significant opportunities to improve governance through increased transparency and accountability in public administration. Specifically, AI applications can streamline government processes, reduce bureaucratic inefficiencies, and enhance service delivery in areas such as healthcare, education, and public safety. Third, establishing a robust data governance framework can foster a conducive environment for innovation. Encouraging partnerships between academia, the private sector, and government can lead to the development of localized AI solutions that cater to the specific needs and challenges of the CEMAC region. Fourth, data governance presents an opportunity for enhanced regional collaboration. Harmonizing data policies across CEMAC can lead to shared standards and cooperative frameworks, making the region more attractive to international investors and technologists. Finally, and not the least, by focusing on inclusive AI development, there is an opportunity to empower marginalized and underserved communities. AI can facilitate access to

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<sup>15</sup> <https://www.dbsa.org/article/how-bridge-digital-literacy-gap-between-cities-and-small-towns>

<sup>16</sup> <https://insights.techcabal.com/african-ai-startups-navigating-growth-amidst-infrastructure-gaps/>

essential services, provide personalized education solutions, and support smallholder farmers with predictive analytics for agriculture just to consider some use cases.

### I.3. The Need for AI Governance

While data governance focuses on managing the data lifecycle, AI governance extends these principles to the complexities of AI systems, which not only process but also generate data through learning algorithms.<sup>17</sup> AI governance must address the added layers of complexity in how decisions are made by machines and the ethical implications thereof. AI introduces challenges such as algorithmic bias, which can perpetuate or even exacerbate existing social inequalities if not properly managed.<sup>18</sup> Ensuring transparency and accountability in AI systems is critical to maintain public trust and to safeguard democratic values.

### I.4. Integrating AU Data Policy with AI Governance

The Africa Union Data Policy Framework sets broad guidelines that ensure data is handled securely, ethically, and equitably across member states. These principles provide a foundation for extending into AI governance, ensuring that AI technologies are developed and deployed in ways that respect privacy, enhance security, and promote inclusivity. Integrating data justice involves embedding fairness, accountability, and transparency within the AI lifecycle. This means ensuring AI systems do not unjustly discriminate and that they remain accessible and beneficial to all segments of society, particularly in marginalized communities.

### I.5. Objective

The primary objective of this project is to advance the discussion on Data Governance and its evolution into AI Governance specifically in the context of the CEMAC (focusing on Cameroon and Gabon). By assessing the current data policy framework established by the African Union and formulating policy recommendations that incorporate the principles of Data Justice, this study strives to lay the groundwork for

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<sup>17</sup> <https://www.factspan.com/blogs/data-and-ai-governance-evolving-traditional-data-governance-in-the-age-of-artificial-intelligence/>

<sup>18</sup> Chen, Z. Ethics and discrimination in artificial intelligence-enabled recruitment practices. *Humanit Soc Sci Commun* **10**, 567 (2023). <https://doi.org/10.1057/s41599-023-02079-x>

inclusive and responsible data utilization throughout the region. More specifically, the objective is twofold:

1. To assess local policies in relation to data justice and the AU data policy framework by conducting an extensive analysis of the current local policies in relation to AU data policy framework, examining their adaptability and alignment with the AU Data policy and identifying specific gaps and potential areas for improvement, particularly in light of evolving technological trends and emerging ethical considerations related to Data Justice.
2. To develop a comprehensive set of policy recommendations tailored to the unique socio-political and economic contexts of the targeted area. These recommendations will encompass specific strategies for enhancing the local policies framework, as well as guidelines for effectively integrating Data Justice Principles into existing data governance initiatives.

## **I.6. Scope of the study**

This study focuses exclusively on the CEMAC region, with thematic coverage extending from existing data governance infrastructures to future frameworks for AI governance. The scope of this study is limited to governance frameworks and does not extend into the technical aspects of AI development or the specific technological implementations of AI systems within industries.



## II. Overview of Africa Union Data Policy Framework

## II.1. Introduction to the AU Data Policy Framework

The Africa Union Data Policy Framework<sup>19</sup> was developed to address the growing importance of data in the global and African economies. It recognizes data as a strategic asset essential for national development, economic integration, and participation in the global market. The framework was initiated in response to the need for a cohesive approach to manage and protect data within the continent, fostering growth and innovation while ensuring privacy and data protection.

The main goal of the framework is to harmonize data protection regulations across Africa, ensuring that all member states adopt best practices in data management. Objectives include promoting data as a force for economic development, protecting citizens' privacy rights, and enhancing Africa's position in the global digital economy by ensuring that data handling meets international standards.

## II.2. Key Components of the Framework

The AU Data Policy framework can be summarized into four main components:

- 1) **Data Protection and Privacy:** This component outlines the rights of individuals to control their personal data and sets forth the obligations of data collectors and processors. It includes guidelines for consent, data subject rights, and data breach notifications, ensuring that personal data is handled securely and transparently.
- 2) **Data Sovereignty:** The framework emphasizes the concept of data sovereignty, asserting that data generated within the borders of a nation should be subject to that nation's regulations. It discusses the conditions under which data can be stored, processed, and potentially transferred across borders, aiming to balance national interests with the benefits of globalization.
- 3) **Security Measures:** Security standards are specified to guide the protection of data against unauthorized access, use, or destruction. These measures are designed to ensure data integrity and availability, covering both technical and organizational security tactics.

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<sup>19</sup> <https://au.int/sites/default/files/documents/42078-doc-AU-DATA-POLICY-FRAMEWORK-ENG1.pdf>

- 4) **Ethical Data Use:** Ethical guidelines are provided to prevent data misuse and discrimination. These guidelines ensure that data is used in a manner that respects human dignity and values, promoting fairness and preventing algorithms from causing harm.

### II.3. Governance Structures

The governance structures proposed in the AU Data Policy framework tackles three dimensions:

- **Institutional Arrangements:** The framework recommends the establishment of national data protection authorities responsible for overseeing, enforcing, and updating data governance policies. These bodies also serve as points of contact and cooperation among states to resolve cross-border data protection issues.
- **Compliance and Enforcement Mechanisms:** Detailed mechanisms include audits, fines, and other penalties for non-compliance. Procedures for reporting and investigating data breaches are outlined to ensure quick responses and mitigation of any damage.
- **Collaborative Mechanisms:** Highlights cooperative efforts such as shared frameworks and mutual assistance in investigations and enforcement, which are critical for managing data that spans multiple jurisdictions.

### II.4. Implementation Strategies

- **National Implementation:** Discusses the steps individual member states must take to align their national laws with the framework, including legislative amendments and the establishment of regulatory bodies.
- **Capacity Building:** Focuses on initiatives to enhance the capabilities of stakeholders through training programs, workshops, and resource sharing. This ensures that all member states have the knowledge and skills to implement and adhere to the framework effectively.
- **Monitoring and Evaluation:** Explains the methodologies and tools used to assess the effectiveness of implemented policies, including regular reviews and

updates to the framework to address emerging challenges and technological advances.

## II.5. Challenges and Achievements

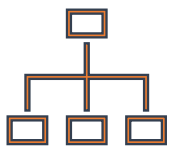
- **Implementation Challenges:** Analyzes various obstacles faced by countries, such as resource limitations, resistance from stakeholders, and technological barriers. This section also considers the political and economic diversity of Africa, which can complicate a unified approach to data governance.
- **Success Stories:** Provides case studies from member states that have successfully implemented parts of the framework, illustrating the benefits of robust data governance, such as improved international trade relations, enhanced privacy protections, and boosted investor confidence.

## II.6. Relevance to AI

- **From Data Governance to AI Governance:** Transitions the discussion from current data governance to the necessary extensions for AI. It argues for AI-specific regulations that address the autonomy and complexity of AI systems, while maintaining the foundational goals of the original framework.
- **Evolving Needs and Adaptations:** Suggests potential updates to the framework to accommodate AI, such as specific guidelines for AI transparency, explainability, and the ethical development of AI technologies.

## II.7. Ratification in the CEMAC Zone

Despite the relevance of the framework, it has not yet been ratified by countries in the CEMAC zone. Among CEMAC countries, only Gabon has requested support from GIZ for the domestication process of the AU Data Policy Framework.



### III. The State of Data Governance in CEMAC



### III.1. Overview of Data Governance in CEMAC

The Central African Economic and Monetary Community (CEMAC) is a significant regional organization aimed at fostering economic integration and stability among its member countries. Established in 1994, CEMAC comprises six Central African nations: Cameroon, the Central African Republic, Chad, Equatorial Guinea, Gabon, and the Republic of Congo.

CEMAC's primary objectives are to promote harmonious economic development, create a common market, and establish a unified monetary policy to ensure financial stability within the region.<sup>20</sup> The organization also focuses on enhancing trade relations, improving infrastructure, and fostering a conducive environment for investment. By working together, CEMAC member states aim to leverage their collective resources and strategic positions to achieve sustainable economic growth and reduce poverty.

CEMAC's significance in the African economic landscape is underscored by its strategic location and abundant natural resources, including oil, minerals, and agricultural products. The region's potential for economic growth is considerable, yet it faces numerous challenges, such as political instability, inadequate infrastructure, and limited access to finance. Nevertheless, CEMAC remains a vital player in the broader African integration agenda, contributing to the continent's overall economic development and stability.

The digital infrastructure within the CEMAC region is a critical component for effective data governance and economic development. However, the current state of this infrastructure varies significantly across the member countries, reflecting both progress and ongoing challenges.

Telecommunications networks form the backbone of digital infrastructure. In CEMAC, the development of these networks has seen mixed results. Countries like Gabon<sup>21</sup> and Cameroon<sup>22</sup> have made substantial investments in expanding their telecommunications infrastructure, leading to relatively higher mobile penetration rates

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<sup>20</sup> <https://ecfr.eu/special/african-cooperation/cemac/>

<sup>21</sup> <https://oxfordbusinessgroup.com/explore-market-research/africa/gabon/ict/>

<sup>22</sup> <https://www.nenenglawoffice.com/post/exploring-lucrative-opportunities-investing-in-the-growing-telecommunication-sector-in-cameroon>

and better network coverage. Conversely, countries like the Central African Republic and Chad lag behind, with limited network reach and lower mobile penetration rates. Overall, the region is still working towards achieving comprehensive and reliable telecommunications networks.

The availability and sophistication of data centers in the CEMAC region are crucial for supporting data governance and digital services. While some progress has been made, the region still faces significant gaps. Gabon<sup>23</sup> and Cameroon<sup>24</sup> have made strides in developing local data centers, albeit on a limited scale. These facilities are essential for ensuring data sovereignty and enhancing the region's capacity to handle large volumes of data securely. However, many CEMAC countries continue to rely on data centers outside the region, which poses risks related to data security and governance.

Internet access is a fundamental aspect of digital infrastructure. Across the CEMAC region, internet penetration rates in some countries remain relatively low compared to global averages (CAR 10.6%, Chad 22/5%, Congo 36.2%, as for January 2024)<sup>25</sup>. Urban areas, particularly in Gabon and Cameroon, exhibit higher access rates due to better infrastructure and higher economic activity. In contrast, rural areas across all member states face significant challenges, including limited access to affordable internet services and low digital literacy rates. Efforts to improve internet access are ongoing, with initiatives focused on expanding broadband infrastructure and reducing the digital divide between urban and rural areas.

## III.2. Regulatory Environment

Data protection laws across the CEMAC member states are at varying stages of development, reflecting diverse levels of legislative maturity and enforcement capacity.

1. **Cameroon:** Cameroon has made significant progress with the adoption of the Cybersecurity and Cybercrime Law in 2010<sup>26</sup>, which includes provisions for

<sup>23</sup> <https://blogs.mediapart.fr/amdb/blog/170524/souverainete-numerique-projet-de-construction-dun-data-center-au-gabon>

<sup>24</sup> <https://www.datacenterjournal.com/data-centers/cameroon/>

<sup>25</sup> <https://www.statista.com/statistics/1124283/internet-penetration-in-africa-by-country/>

<sup>26</sup> <http://www.minjustice.gov.cm/index.php/en/instruments-and-laws/laws/302-law-no-2010-12-of-21-december-relating-to-cybersecurity-and-cybercriminality-in-cameroon>

data protection. Recent amendments have further strengthened these regulations, focusing on personal data protection and privacy.

2. **Central African Republic:** The Central African Republic has lagged in developing comprehensive data protection laws. Efforts are underway to draft a legal framework that aligns with international standards, but progress has been slow due to political instability and limited resources.
3. **Chad:** Chad implemented the Electronic Communications Law in 2015, which includes sections on data protection. However, enforcement remains weak due to inadequate infrastructure and a lack of technical expertise.
4. **Equatorial Guinea:** Equatorial Guinea has recently enacted a data protection law aimed at safeguarding personal information and regulating data processing activities.<sup>27</sup> This law is part of broader reforms to enhance digital governance in the country.
5. **Gabon:** Gabon is one of the more advanced CEMAC members in terms of data protection legislation. The country passed the Personal Data Protection Act in 2011, establishing a legal framework for data privacy and creating a regulatory body for oversight.<sup>28</sup>
6. **Republic of Congo:** The Republic of Congo has adopted a comprehensive data protection law that aligns with international best practices. This legislation, enacted in 2018, focuses on protecting individuals' personal data and ensuring transparent data processing activities.

## Compliance and Enforcement

Enforcement of data protection laws in CEMAC countries varies significantly, influenced by the capacity and effectiveness of regulatory bodies.

1. **Cameroon:** The National Agency for Information and Communication Technologies (ANTIC<sup>29</sup>) oversees data protection enforcement. Despite having

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<sup>27</sup> <https://dataprotection.africa/equatorial-guinea/>

<sup>28</sup> <https://www.dataguidance.com/jurisdiction/gabon>

<sup>29</sup> <https://www.antic.cm/>

a robust legal framework, challenges such as limited funding and technical expertise hinder effective enforcement.

2. **Central African Republic:** The country lacks a dedicated regulatory body for data protection, resulting in minimal enforcement of existing laws. Efforts to establish such an authority are ongoing but face significant hurdles due to resource constraints.
3. **Chad:** Enforcement is managed by the Ministry of Posts and New Information Technologies. The regulatory body struggles with inadequate resources and expertise, affecting the overall effectiveness of data protection efforts.
4. **Equatorial Guinea:** A newly established data protection authority is tasked with enforcing the recent legislation. However, the body is still building its capacity and faces challenges related to resource allocation and staff training.
5. **Gabon:** The Gabonese Data Protection Authority (CNPDCP) that was relatively well-established and actively monitoring compliance with data protection laws has recently been transformed into the Authority for the Protection of Personal Data and Privacy.<sup>30</sup>
6. **Republic of Congo:** The Agency for the Regulation of Post and Electronic Communications (ARPCE) is responsible for enforcing data protection laws. While the regulatory framework is comprehensive, enforcement is hampered by limited resources and the need for enhanced technical skills.

### III.3. Challenges in Data Governance

In the CEMAC region, existing legal frameworks for data governance in most countries are often outdated and insufficient, failing to adequately address the complexities of modern data handling practices. Many member states still rely on laws that predate the digital era, lacking specific provisions for digital data collection, processing, and storage. This deficiency leaves these countries unprepared to manage the challenges posed by rapid technological advancements and the growing volume of data. Although

<sup>30</sup> <https://gabonmediatime.com/gabon-cnpdcp-transformee-autorite-pour-protection-des-donnees-caractere-personnel-vie-privee/>

some nations have introduced basic data protection laws, these often do not fully address issues like data privacy, user consent, and cross-border data flows, undermining efforts to ensure responsible and secure data handling, which is essential for leveraging data for economic and social development.

The implementation of data governance laws across CEMAC countries varies significantly, reflecting differences in technological development, governance capacity, and political will. For instance, Gabon<sup>31</sup> and Cameroon<sup>32</sup> have made more progress in establishing and enforcing data protection regulations compared to countries like the Central African Republic and Chad, where political instability and resource constraints hinder advancements. These disparities are compounded by varying levels of technological infrastructure; countries with more developed digital ecosystems can more effectively implement data governance policies, while those with underdeveloped infrastructure struggle, resulting in a fragmented regulatory landscape. This inconsistency hampers regional cooperation and creates loopholes that can be exploited, weakening the overall efficacy of data governance.

The region faces significant security and privacy challenges due to high rates of cybercrime and insufficient cybersecurity measures. Cyber threats, such as hacking, data breaches, and malware attacks, are common and target both public and private sectors. These issues are exacerbated by weak cybersecurity infrastructure, inadequate investment in security technologies, and a shortage of skilled personnel to manage cyber risks. Additionally, there is considerable public distrust regarding the management of personal data, with many citizens concerned about misuse or unauthorized access to their information. This distrust is heightened by instances of data breaches and a perceived lack of prioritization of data privacy by governments and organizations, further undermined by a lack of transparent policies and effective communication.

In defining a data governance framework, confusion often arises among decision-makers between data sovereignty and data localization. Data localization refers to the requirement that data be stored within a specific country's borders, often mandated by law. In contrast, data sovereignty asserts a country's right to govern and control data

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<sup>31</sup> <https://www.africanobservatory.ai/social/new-ai-rules-in-gabons-personal-data-protection-law>

<sup>32</sup> <https://www.dataguidance.com/notes/cameroon-data-protection-overview>

generated within its borders, regardless of where it is stored, focusing on the legal jurisdiction over data<sup>33</sup>. Some CEMAC countries have been more proactive in developing data policies, but implementation and enforcement levels vary. Continental efforts, such as the African Union's data policy framework, could promote more harmonized approaches to data localization and sovereignty in the future. However, challenges persist, including differing levels of digital infrastructure, varying national priorities, and the need to balance data sovereignty with the benefits of cross-border data flows for economic integration.

The region faces several major challenges in implementing robust data governance, including limited resources, lack of specialized expertise, and competing development priorities. Among these challenges are limited digital infrastructure, such as inadequate broadband connectivity and unreliable power supply, particularly in rural areas; a shortage of skilled professionals in data science, cybersecurity, and policy development; and financial constraints, with limited budgets for digital initiatives. Regulatory fragmentation is another issue, with inconsistent data protection laws across CEMAC countries and difficulties in harmonizing regulations due to differing national priorities. Additionally, there is a general lack of awareness about data rights and privacy issues among the population and a limited understanding of data governance importance among some policymakers. Other challenges include addressing the needs of diverse ethnic and linguistic groups, resistance to data sharing across cultural boundaries, limited private sector engagement, and an underdeveloped tech industry in many CEMAC countries. The region also faces increasing cyber threats<sup>34</sup> with limited capacity to respond, concerns about data sovereignty and cross-border data flows, and a lack of regional coordination, making it difficult to establish a unified CEMAC approach to data governance. Lastly, competing priorities, such as addressing immediate economic and social challenges, sometimes overshadow long-term data governance planning, and there is a difficulty in demonstrating the immediate tangible benefits of data governance initiatives. Additionally, outdated government IT systems, and the high costs and complexity of upgrading infrastructure further complicate efforts.

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<sup>33</sup> This explanation has been given during the "Advancing Data Governance and Policy in Africa" workshop organized in May 2024 by GIZ African Union Office

<sup>34</sup> <https://www.ptsecurity.com/ww-en/analytics/africa-cybersecurity-threatscape-2022-2023/>



## IV. Understanding AI and its Implications for Governance

## IV.1. Introduction to Artificial Intelligence

Artificial Intelligence (AI) refers to the development of computer systems capable of performing tasks that typically require human intelligence.<sup>35</sup> This includes various subfields such as:

- **Machine Learning:** Systems that can learn and improve from experience without being explicitly programmed.
- **Deep Learning:** A subset of machine learning based on artificial neural networks with multiple layers.
- **Neural Networks:** Computing systems inspired by biological neural networks in animal brains.

The scope of AI spans from narrow AI, designed to perform specific tasks (like voice assistants or image recognition), to general AI, which theoretically could perform any intellectual task that a human can do<sup>36</sup>. While narrow AI is already prevalent, general AI remains a future goal.

In the CEMAC region, AI has potential applications across various sectors:

- **Healthcare:** AI could assist in diagnostic processes, especially in areas with limited access to medical professionals.
- **Agriculture:** Precision farming techniques using AI could optimize crop yields and resource usage.
- **Financial Services:** AI can enhance financial inclusion through improved risk assessment for loans and personalized financial advice.
- **Public Administration:** AI could streamline government processes, improving efficiency and reducing corruption.

These applications have the potential to address specific challenges faced by CEMAC countries, such as limited healthcare access, agricultural productivity, and public service delivery. However, successful implementation will require careful consideration

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<sup>35</sup> "OECD AI Principles overview", Organisation for Economic Co-operation and Development (OECD) AI Policy Observatory, 2023, <https://oecd.ai/en/ai-principles>

<sup>36</sup> <https://levity.ai/blog/general-ai-vs-narrow-ai>



of the unique context and challenges of the region, including infrastructure limitations and the need for capacity building.

## IV.2. AI's Impact on Society and Economy

### Economic Benefits

AI has the potential to significantly boost economic growth in the CEMAC region by enhancing productivity across various industries through the automation of routine tasks and process optimization. This could lead to increased efficiency and overall productivity. While AI may displace certain jobs, it is also expected to create new roles in technology development, data analysis, and AI maintenance. Specific sectors stand to benefit uniquely from AI: in agriculture, AI-driven precision farming could improve crop yields and resource management<sup>37</sup>, critical for food security and economic stability. In financial services, AI can enhance financial inclusion through better risk assessment and personalized banking services (including open banking<sup>38</sup> and mobile money), potentially increasing economic participation. The natural resources sector could see improvements in extraction processes and sustainability<sup>39</sup>, particularly in the vital oil and mineral industries. Furthermore, AI technologies could help CEMAC countries diversify their economies beyond traditional sectors, fostering innovation and resilience.

### Social Implications

The introduction of AI in CEMAC countries will likely have significant social impacts. While AI may automate some jobs, it will also create new opportunities, necessitating workforce retraining and adaptations in the education system<sup>40</sup>. In healthcare, AI could enhance diagnostic capabilities and healthcare delivery, particularly in areas with limited access to medical professionals. The education sector could benefit from AI-powered personalized learning, potentially improving educational outcomes. However, this may also exacerbate the digital divide if not implemented equitably. AI could streamline government services, potentially reducing corruption and improving citizen

<sup>37</sup> Adebola, T., & Ibeke, E. (2023). Agriculture in Africa: the emerging role of artificial intelligence. LexisNexis Butterworths.

<sup>38</sup> [https://digitalbankerafrica.com/readers\\_digest/open-banking-in-africa-riding-the-wave-of-innovation-and-inclusion/](https://digitalbankerafrica.com/readers_digest/open-banking-in-africa-riding-the-wave-of-innovation-and-inclusion/)

<sup>39</sup> <https://www.wizata.com/knowledge-base/sustainability-in-the-raw-material-industry-with-ai>

<sup>40</sup> <https://cioafrica.co/ai-and-the-future-of-work-in-africa/>

satisfaction. Nonetheless, there is a risk that AI could worsen existing social and economic inequalities if not thoughtfully and inclusively implemented.

### **Ethical and Legal Challenges**

The adoption of AI in CEMAC countries raises several ethical and legal concerns. Privacy issues are prominent due to the vast data requirements of AI systems, raising concerns about individual data protection. There is also the risk of algorithmic bias, as AI systems may perpetuate or amplify existing biases, especially if trained on non-representative datasets. The "black box" nature of some AI systems can make their decisions difficult to understand and challenge, posing transparency and accountability issues. Moreover, existing legal frameworks in CEMAC countries may not adequately address AI-specific challenges, necessitating new legislation. Intellectual property concerns, particularly around ownership of AI-generated content and innovations, need to be clarified. Additionally, AI systems could be vulnerable to hacking or misuse, posing potential national security risks.

Addressing the ethical and legal challenges is of high priority. According to the recent Global Index for Responsible AI (GIRAI)<sup>41</sup> report released in June 2024, CEMAC countries ranking is very low as shown in Table 1.<sup>42</sup> The best country in the CEMAC zone is Cameroon with an index score of only 4.04 far below South Africa with 27 and very far from Netherlands that scores 86.16. Central African Republic that scores only 0.57 is close to the last country South Sudan that scores 0.47. Therefore, there is a need to harness the benefits of AI while mitigating potential negative impacts. This will require a comprehensive approach involving policy development, stakeholder engagement, and continuous monitoring and adaptation of AI governance frameworks.

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<sup>41</sup> GIRAI is a multidimensional tool measuring progress towards responsible AI in 138 countries and jurisdictions. <https://www.global-index.ai/>

<sup>42</sup> Adams, R., Adeleke, F., Florido, A., de Magalhães Santos, L. G., Grossman, N., Junck, L., & Stone, K. (2024). Global Index on Responsible AI 2024 (1st Edition). South Africa: Global Center on AI Governance.

Table 1. CEMAC Global Index for Responsible AI

Global Rank /138	African Rank / 41	Country	Index score [0,100]
97	17	Cameroon	4.04
115	25	Gabon	1.66
120	27	Chad	1.2
132	37	Congo	0.7
136	39	Central African Republic	0.57

### IV.3. AI and Governance

#### Government Use of AI

AI technologies offer significant potential to enhance governance within the CEMAC region. In public service delivery, AI can streamline administrative processes, reducing bureaucracy and improving efficiency. Chatbots and AI-powered platforms can provide 24/7 citizen services, thereby improving accessibility, like the platform U-Ask unveiled by UAE<sup>43</sup>. For decision support systems, AI can analyze large datasets to provide evidence-based insights for policy-making, while predictive models can aid in resource allocation and urban planning. In the realm of security and law enforcement, AI-powered surveillance systems can enhance public safety, and predictive policing algorithms, if used ethically, could help prevent crime. In healthcare management, AI can optimize hospital resource allocation, predict disease outbreaks, and improve healthcare access in remote areas through telemedicine<sup>44</sup>. In education, AI can personalize learning experiences and help identify students at risk of dropping out, while automating administrative tasks allows educators to focus more on teaching.

#### Policy and Regulatory Needs

<sup>43</sup> <https://www.edgemiddleeast.com/innovation/emergent-tech/uae-unveils-new-ai-chatbot-to-enhance-government-services>

<sup>44</sup> <https://www.bond.org.uk/news/2024/02/ai-for-rural-health-5-opportunities-ingos-cant-afford-to-miss/>

To effectively govern AI, CEMAC countries need to develop comprehensive policies and regulations. These should include data protection and privacy policies that ensure the ethical collection, storage, and use of personal data, as well as regulations on cross-border data flows within CEMAC and beyond. An AI ethics framework should be established to ensure that AI systems respect human rights and promote inclusivity, with policies to prevent and mitigate algorithmic bias. Transparency and accountability regulations should require explainable AI in critical decision-making processes and include mechanisms for auditing AI systems and addressing grievances. AI literacy and education policies should promote AI literacy among citizens and policymakers, integrating AI and data science into educational curricula. Finally, policies should encourage AI research and development, balancing innovation with ethical standards and fostering public-private partnerships in AI development.

### **Challenges in AI Governance**

CEMAC countries face several challenges in implementing effective AI governance. There are capacity gaps, including a shortage of AI experts and policymakers with AI expertise, and limited technical infrastructure for AI implementation and oversight<sup>45</sup>. Cross-border coordination is needed to harmonize AI policies across CEMAC, facilitating regional integration and managing cross-border data flows and AI services. A critical challenge is balancing innovation and regulation, ensuring adequate safeguards while keeping regulations flexible enough to accommodate rapid technological changes. Resource constraints, including limited financial resources and competing priorities, pose additional challenges. Furthermore, the region's cultural and linguistic diversity requires AI systems to respect and cater to this diversity, addressing potential biases in AI systems developed outside the region. Lastly, the digital divide must be addressed to ensure that AI governance does not exacerbate existing digital inequalities, with inclusive policies that consider varying levels of digital access and literacy.

Addressing these challenges will require a coordinated effort from CEMAC governments, international partners, the private sector, and civil society. Effective AI governance is crucial for harnessing the benefits of AI while mitigating potential risks

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<sup>45</sup> Ade-Ibijola, A., Okonkwo, C. (2023). Artificial Intelligence in Africa: Emerging Challenges. In: Eke, D.O., Wakunuma, K., Akintoye, S. (eds) Responsible AI in Africa. Social and Cultural Studies of Robots and AI. Palgrave Macmillan, Cham. [https://doi.org/10.1007/978-3-031-08215-3\\_5](https://doi.org/10.1007/978-3-031-08215-3_5)

and ensuring that AI deployment aligns with the region's development goals and values.

#### IV.4. Frameworks for AI Governance

Globally, several AI governance frameworks have been developed that could guide CEMAC in establishing its own regulations. The EU's Ethics Guidelines for Trustworthy AI<sup>46</sup> promote principles such as human agency, privacy, and accountability, including a checklist for ensuring trustworthy AI. The OECD's AI Principles<sup>47</sup> advocate for inclusive growth and human-centered values, while UNESCO's recommendations<sup>48</sup> emphasize the ethical implications of AI, underscoring the protection of human rights. The IEEE's Ethically Aligned Design<sup>49</sup> provides technical standards and stresses human rights and data agency. Although these frameworks offer valuable insights, they may require adaptation to meet the specific needs and context of the CEMAC region.

A bespoke AI governance framework for CEMAC should align with regional development goals, address infrastructural challenges, and respect diverse linguistic and cultural landscapes. It should include guidelines for ethical AI that promote fairness, transparency, and accountability, and involve various stakeholders such as governments, academia, and civil society in its development to ensure inclusivity. The proposal for a CEMAC-wide AI regulatory body would oversee policy implementation, monitoring, and enforcement.

Furthermore, the framework should facilitate cross-border cooperation to harmonize AI policies and manage cross-border data flows effectively. Emphasizing capacity building, it should enhance local AI expertise and literacy, particularly among policymakers and the public. Sector-specific guidelines would tailor AI applications to areas like healthcare and finance, while innovation support could include ethical compliance checks and foster public-private partnerships.

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<sup>46</sup> <https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>

<sup>47</sup> <https://oecd.ai/en/ai-principles>

<sup>48</sup> <https://www.unesco.org/en/articles/recommendation-ethics-artificial-intelligence>

<sup>49</sup> The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems. Ethically Aligned Design: A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems, Version 2. IEEE, 2017. [http://standards.ieee.org/develop/indconn/ec/autonomous\\_systems.html](http://standards.ieee.org/develop/indconn/ec/autonomous_systems.html)

The governance model should also have a robust mechanism for monitoring and evaluating AI impacts, allowing for flexible policy adjustments as AI technologies evolve. Human rights protection should be paramount, addressing potential discrimination and bias. Environmental considerations must be included to ensure AI development is sustainable.

## IV.5. Strategic Implementation

For implementation, a phased approach is recommended, starting with foundational policies and gradually incorporating more complex governance structures. Training programs will be crucial for building local expertise. Leveraging international partnerships can provide additional support and resources, while public awareness initiatives will help build trust and informed participation in AI governance. Regular reviews of the framework will ensure it remains relevant and effective in addressing emerging AI challenges and advancements.



## V. Integrating Data Justice into AI Governance

## V.1. Introduction to Data Justice

Data justice refers to the fair and ethical treatment of individuals and communities in the collection, processing, sharing, and use of data<sup>50</sup>. In the context of AI governance, data justice is crucial to ensure that AI systems do not perpetuate or exacerbate existing inequalities, but rather contribute to a more equitable society. Table 2 provides a comprehensive comparison between data governance, AI governance and data justice.

Table 2. Comparison between data governance, AI governance, and data justice.

Aspect	Data Governance	AI Governance	Data Justice
<b>Definition</b>	Involves the processes, policies, standards, and metrics for managing data assets within an organization. Focuses on accuracy, security, and compliance.	Extends beyond data governance to address ethical development, deployment, and use of AI technologies. Focuses on algorithmic transparency, fairness, and accountability.	Focuses on the social justice implications of data-centric technologies. Concerned with rights, fairness, and social equity.
<b>Objectives</b>	Ensure data is accurate, available, and accessible, and securely managed; compliance with regulations.	Manage risks associated with AI such as bias and explainability; ensure ethical use of AI.	Promote equity and justice in data practices; mitigate harms and ensure benefits of data technologies are shared widely.
<b>Focus Areas</b>	Data quality, data management, data policies, business process management, risk management.	Algorithmic transparency, fairness, accountability in AI systems, societal impacts of automation and AI decision-making.	Rights and fairness in the use of data, impact of data processes on marginalized groups.

<sup>50</sup> GPAI (2022). Data Governance Working Group – A Framework Paper for GPAI’s Work on Data Governance 2.0, Report, November 2022, Global Partnership on AI, Paris.



<b>Stakeholder Involvement</b>	Involves various organizational stakeholders in managing and using data.	Includes policymakers, developers, and end-users in shaping AI governance.	Advocates for participation of marginalized communities and broader societal involvement.
<b>Ethical Concerns</b>	Emphasizes ethical management and protection of data privacy and security.	Focuses on ethical development and deployment of AI, addressing issues like algorithmic bias.	Addresses broader societal implications and equity, focusing on data practices affecting vulnerable populations.
<b>Policy and Regulation</b>	Involves creating and enforcing policies and standards for data use within organizations.	Develops specific policies and guidelines for the ethical use of AI technologies.	Calls for policies that ensure fairness and justice in data practices, often influencing broader regulatory frameworks.

Data justice in AI governance is crucial for the CEMAC region as it addresses socio-economic inequalities and ensures that AI systems do not favour certain groups over others. This framework promotes ethical AI development that respects human rights, dignity, and the diverse cultural values specific to CEMAC. By implementing data justice principles, governments can foster public trust in AI technologies, which is essential for their acceptance and effective use. This approach also aligns AI development with sustainable development goals by ensuring fair representation and consideration of all societal groups.

The core principles of data justice for CEMAC include equitable access to data, preventing discrimination in data processing, and protecting privacy. These principles ensure that all communities have fair access to data and services while safeguarding individuals' personal information. Transparency and accountability are also key, requiring clear and understandable data collection and AI decision-making processes. Additionally, data sovereignty asserts the region's right to control the data generated within its borders, balancing this with the benefits of cross-border data flows.

Empowerment through data and promoting data literacy are vital for enabling informed participation in the digital economy.

Data justice is particularly relevant in CEMAC due to the region's diverse levels of development, rich cultural diversity, and historical inequalities. It ensures that AI benefits are fairly distributed, respects cultural and linguistic diversity, and avoids perpetuating past injustices. The challenges of limited digital infrastructure and the need for regional integration further emphasize the importance of a cohesive approach to data governance. Integrating these principles into AI governance frameworks will help build trust in AI systems, ensuring their sustainable and beneficial implementation across the CEMAC region.

## V.2. Challenges of AI in Achieving Data Justice

### **Bias and Discrimination**

AI systems can perpetuate or even amplify existing biases, particularly affecting marginalized groups in CEMAC countries. The lack of diverse data sets often leads to the underrepresentation of certain communities in AI decision-making processes, exacerbating these issues.

### **Transparency and Accountability**

The "black box" nature of some AI algorithms complicates the task of explaining decisions, making accountability difficult. This is further compounded by the limited technical expertise in CEMAC countries, which poses challenges in auditing and understanding complex AI systems.

### **Privacy Concerns**

The extensive data collection necessary for AI systems raises significant privacy issues, especially in countries with inadequate data protection laws. Striking a balance between data sharing for AI development and safeguarding individual privacy rights is a complex challenge that needs careful consideration.

### **Digital Divide**

There is unequal access to digital infrastructure across CEMAC countries, leading to skewed benefits and representation from AI technologies. Additionally, limited digital

literacy among certain populations may prevent them from fully participating in or benefiting from AI-driven services.

### V.3. Data Justice in AI Policy Development

#### **Incorporating Justice in AI Laws and Regulations**

To ensure fairness and inclusivity, it is essential to develop comprehensive AI regulations that explicitly incorporate data justice principles. These laws should take into account the unique socio-economic context of CEMAC countries, addressing the specific needs and challenges of the region.

#### **Stakeholder Engagement**

Engaging a diverse range of stakeholders, including marginalized communities, is crucial in the AI policy-making process. Mechanisms should be established for ongoing public consultation, allowing continuous input and feedback on AI governance issues to ensure that the policies are reflective of the broader society's needs.

#### **Ethical AI Development**

Establishing ethical guidelines for AI development is vital to prioritize fairness, transparency, and accountability. These guidelines should encourage the creation of AI solutions that directly address the specific challenges faced by CEMAC countries, ensuring that the technology serves the public good and supports regional development goals.

### V.4. Implementing Data Justice in AI Practices

#### **Equitable AI Access**

To ensure that the benefits of AI technologies are accessible to all, it is crucial to develop strategies that promote equitable access across all CEMAC countries and communities. This includes investing in digital infrastructure to bridge the gap between urban and rural areas, thereby reducing the AI divide and fostering inclusive growth.

#### **Privacy-Enhancing Technologies**

Promoting the use of privacy-enhancing technologies in AI systems is essential for protecting personal data. Developing guidelines for responsible data collection and

use in AI applications will help safeguard individuals' privacy and ensure that data practices align with ethical standards.

### **Algorithmic Transparency and Auditability**

To foster trust and accountability, it is important to implement requirements for explainable AI in critical decision-making processes. Establishing independent bodies to audit AI systems can help ensure fairness and compliance with data justice principles, providing oversight and transparency in AI operations.

### **Capacity Building for Data Justice**

Investing in education and training programs is key to building local expertise in ethical AI development and governance. Additionally, promoting data literacy programs will empower citizens to understand and engage with AI technologies, enabling informed participation in the digital economy.

### **Culturally Sensitive AI Development**

AI systems should respect and incorporate the cultural diversity of CEMAC countries. Developing guidelines for collecting and using culturally sensitive data in AI applications will help create technologies that are inclusive and respectful of regional values.

### **Cross-Border Data Governance**

Establishing frameworks for ethical cross-border data sharing within CEMAC is necessary to support regional AI development. Aligning data governance policies with regional integration goals while respecting national sovereignty will facilitate collaboration and innovation across borders.

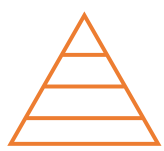
### **AI for Social Good**

AI projects that address pressing social and economic challenges in CEMAC countries should be prioritized. Developing incentives for AI innovations that contribute to sustainable development goals will encourage the use of technology for the public good.

### **Continuous Monitoring and Evaluation**

Implementing mechanisms for continuous assessment of AI systems' impact on different communities is essential for responsive governance. Regularly reviewing and updating AI governance frameworks will ensure that emerging data justice concerns are addressed and that AI technologies continue to align with societal needs.

By integrating these data justice considerations into AI governance, CEMAC can ensure that AI technologies are developed and deployed in a manner that is fair, inclusive, and respectful of human rights. This approach will help mitigate potential harms and maximize the positive impact of AI on social and economic development across the region.



## VI. Proposing an AI Governance Framework for CEMAC

## VI.1. Foundational Principles of AI Governance

### Ethical AI Use

AI systems must be designed and deployed in a manner that respects human rights, dignity, and cultural values. This includes promoting fairness, accountability, and transparency throughout the development and implementation processes, ensuring that AI technologies operate ethically and responsibly.

### Sustainable Development

AI initiatives should be aligned with CEMAC's broader goals of economic diversification and social development. It is important to prioritize AI applications that tackle pressing regional challenges, leveraging technology to support sustainable growth and address key issues facing the region.

### Inclusivity

The development of AI policies must involve diverse stakeholders, ensuring that a wide range of perspectives are considered. Special attention should be given to the needs of marginalized communities, making certain that AI strategies are inclusive and equitable, and that all segments of society can benefit from technological advancements.

## VI.2. Structural Components of the AI Governance Framework

### Regulatory Bodies

To effectively oversee regional AI initiatives, a CEMAC AI Governance Authority should be established, providing centralized oversight and coordination. Additionally, each member state should create national AI committees responsible for implementing localized strategies and ensuring that national policies align with regional goals.

### Legal and Regulatory Infrastructure

Harmonized AI-specific laws should be developed across CEMAC countries to ensure a consistent regulatory environment. Existing regulations should be updated to address new challenges posed by AI, including data protection, intellectual property

rights, and liability issues, creating a robust legal framework that supports safe and responsible AI use.

### **Cross-sector Collaboration**

Formal mechanisms for cooperation between government, academia, industry, and civil society are essential for fostering a collaborative environment. The creation of AI innovation hubs can facilitate public-private partnerships, encouraging joint efforts in AI research, development, and deployment, and ensuring that AI initiatives benefit from diverse expertise and perspectives.

## **VI.3. Policy and Strategy Development**

### **Strategic AI Roadmap**

Develop a comprehensive plan to integrate AI across key sectors such as healthcare, agriculture, and education. This plan should outline clear milestones and timelines for the adoption and governance of AI technologies, providing a structured approach to ensure effective implementation and monitoring of progress.

### **Sector-specific Policy Frameworks**

Create tailored guidelines for the use of AI in critical sectors, addressing the unique challenges and opportunities within each area. These frameworks should consider the specific needs and conditions of each sector, ensuring that AI applications are effectively utilized and managed, and that sector-specific concerns are adequately addressed.

## **VI.4. Ethical and Legal Considerations**

### **Ethics Committees**

Establish AI ethics committees at both national and regional levels to oversee the ethical aspects of AI technologies. These committees should be responsible for developing and enforcing ethical guidelines that govern AI research, development, and deployment, ensuring that these processes adhere to principles of fairness, transparency, and respect for human rights.

### **Legal Reforms**



Amendments to existing laws to address the specific challenges posed by AI, such as those related to data protection, liability, and intellectual property, should be done. Additionally, new legislation should be developed to tackle emerging issues, including the need for algorithmic transparency and the regulation of AI-generated content, providing a legal framework that is responsive to the evolving nature of AI technologies.

## VI.5. Implementation Mechanisms

### Pilot Projects

Initiate AI pilot projects in key sectors to test governance frameworks and gather practical insights. Use the lessons learned from these projects to refine policies and strategies, ensuring that the governance framework is robust and effective.

### Capacity Building

Invest in AI education and training programs at all levels, from primary education to advanced professional training. Develop partnerships with international institutions to facilitate knowledge transfer and enhance local expertise in AI technologies.

## VI.6. Monitoring and Evaluation

**Performance Indicators:** Define specific indicators that can be used to measure the success of AI initiatives, such as improvement in service delivery speed, accuracy of AI applications, and public satisfaction with AI-enhanced services.

**Regular Reviews:** Establish a process for regular assessments of the AI governance framework to ensure it remains relevant and effective. These reviews should consider emerging AI technologies and global governance trends.

## VI.7. International Cooperation

### Global Standards Alignment

Ensure that CEMAC's AI policies align with international standards while addressing local needs. Actively participate in global AI governance discussions to stay informed of international developments and best practices.

### International Partnerships

Foster collaborations with leading AI nations and institutions to enhance CEMAC's AI capabilities. Engage in knowledge exchange programs to build expertise and develop innovative AI solutions.

## VI.8. Data Governance and Justice

### Data Protection Policies

Develop robust data protection regulations that align with international standards. Implement mechanisms to ensure data privacy and security in AI systems, protecting individuals' personal information.

### Equitable Data Access

Create frameworks for fair and inclusive data collection and use. Address digital divides to ensure equal participation in the AI economy, promoting inclusive growth.

### AI Bias Mitigation

Develop guidelines for identifying and mitigating bias in AI systems. Implement regular audits of AI algorithms to ensure fairness and non-discrimination in AI applications.

## VI.9. Public Engagement and Trust Building

### AI Literacy Programs

Launch public education initiatives to inform citizens about the benefits and risks of AI. Integrate AI and data science into educational curricula to build a knowledgeable and skilled workforce.

### Stakeholder Consultation

Establish mechanisms for ongoing public input on AI policies, ensuring that diverse voices, including marginalized communities, are represented in the decision-making process.

## VI.10. Economic and Innovation Policies

### AI Industry Development

Create incentives for AI startups and research initiatives to foster innovation. Develop strategies to attract international AI investments, boosting the region's economic growth.

### **Workforce Adaptation**

Implement programs to reskill workers for the AI economy, preparing them for new job opportunities. Develop policies to address potential job displacements due to AI automation.

## **VI.11. Regional Integration and Cross-border Cooperation**

### **Harmonized AI Policies**

Develop consistent AI governance approaches across CEMAC countries to facilitate regional cooperation. Create mechanisms for cross-border AI projects and data sharing, enhancing regional integration.

### **Regional AI Resources**

Establish shared AI research facilities and data centers to pool resources and expertise. Develop a CEMAC-wide AI talent pool and knowledge-sharing platform to support regional innovation and development.



## VII. Implementation Strategies

## VII.1. Roadmap for Implementation

The implementation will require a 10-year multistage strategy that can be divided into three phases:

- Phase 1 (Years 1-2): During this phase, governance structures should be established and initial policy developed. The first year can be dedicated to the establishment of a CEMAC AI Governance Authority and national committees, while the second year is dedicated to the development of initial AI policies and ethical guidelines.
- Phase 2 (Years 3-5): During Year 3-4, pilot projects in priority sectors should be launched and a comprehensive policy review and adjustment during Year 5.
- Phase 3 (Years 6-10): This last phase is dedicated to full-scale implementation and continuous improvement.

Related to Phase 2, priority areas should be identified. Four key and urgent sectors that can should be addressed in the short term remain healthcare, agriculture, education, and public administration. However, the focus should be on high-impact, low-risk applications to build confidence and demonstrate value.

### **AI-enhanced healthcare delivery**

Implement AI-powered diagnostic tools in select hospitals to improve patient care. Use AI for optimizing health resource allocation and predicting epidemics to enhance public health responses.

### **Smart agriculture**

Deploy AI-driven precision farming techniques in key agricultural areas to increase productivity. Develop AI-powered systems for early detection of crop diseases, ensuring better management and yield.

### **AI in public administration**

Introduce AI chatbots for citizen services in major cities to streamline public interactions. Use AI for fraud detection in public financial management, promoting transparency and accountability.

### **AI for education**

Pilot AI-powered personalized learning platforms in select schools to enhance educational experiences. Develop AI tools to identify and support students at risk of dropping out, improving retention rates.

## VII.2. Stakeholder Engagement

A non-exhaustive list of relevant stakeholders includes government departments (The Ministry of Posts and Telecommunication in Cameroon, The Ministry of Posts and New Information and Communication Technologies in Chad, The Ministry of Posts and Telecommunications in charge of New Technologies in CAR...), government agencies (such as ANTIC in Cameroon, ACDD in CAR, or APDPVP in Gabon...), the tech companies, academic institutions, NGOs, and community representatives. Each plays a different role in AI governance: from policy formulation to grassroots implementation.

- Government department and agencies: Policy development, regulation, and oversight.
- Private sector: Technology development, implementation, and innovation.
- Academia: Research, education, and ethical guidance.
- Civil society: Public advocacy, community representation, and impact assessment.

To engage all those stakeholders, some strategies should be put in place:

- Regular stakeholder forums and consultations.
- Online platforms for continuous feedback and idea sharing.
- Annual CEMAC AI Summit to discuss progress and future directions.

## VII.3. Resource Allocation

Detail the financial resources required for each implementation phase. Include costs for setting up regulatory bodies, running educational programs, and funding pilot projects. Specific budget for AI governance in national and CEMAC-wide financial plans should be allocated and long-term funding commitments for sustained implementation should be ensured.

Funding sources can include CEMAC member state contributions, international development partners (e.g., World Bank, African Development Bank), or even private sector investments through public-private partnerships.

However, the resource distribution should be done on an equitable basis across member states, considering varying levels of digital readiness. In addition, funding for infrastructure development in less developed areas and capacity building should be prioritised.

## VII.4. Capacity Building

Capacity building is paramount in the implementation strategy. Several training programs should be developed:

- An AI literacy programs for government officials and policymakers.
- An AI and data science curricula in universities and vocational institutions.
- A specialized training for AI developers on ethical AI practices.

At the level of public education, a comprehensive public awareness campaigns on AI should be launched, and an integration of AI education into school curricula at all levels should be considered.

Finally, regulatory bodies should be strengthened by enhancing their technical capabilities and by providing necessary tools and technologies for effective AI governance. This also includes investing in IT infrastructure and analytical tools to monitor and evaluate AI applications.

## VII.5. Monitoring and Evaluation

Key Performance Indicators should be defined to measure AI adoption, economic impact, and social benefits. Some KPIs can include improvement in service delivery speeds, accuracy in AI applications, or economic impacts like job creation or GDP growth. Metrics for assessing ethical compliance and data justice should be established.

## VII.6. Risk Management and Contingency Planning

To manage potential risks associated with AI technologies, a comprehensive risk assessment can be done across all sectors and a regular update of risk registers to account for new challenges, such as technology failures, ethical breaches, data leaks, or public resistance. This may imply an annual reviews of AI governance framework effectiveness and the establishment of an independent AI impact assessment body. In addition, there is a need to develop sector-specific risk mitigation plans, including implementing stringent data security measures and conducting ethical audits of AI systems. Moreover, protocols for addressing AI system failures or unintended consequences, and develop crisis communication strategies to manage AI-related incidents effectively should be established. Formal channels for stakeholders to provide feedback on AI initiatives can be developed. This could include regular surveys, feedback forms on the dedicated portal, and open town hall meetings, especially in rural or marginalized areas.

## VII.7. Policy Harmonization and Legal Compliance

### Harmonizing Policies

Efforts should be made to align AI policies with existing CEMAC agreements and protocols, ensuring that regional regulations are cohesive and supportive of broader regional integration goals. Additionally, these policies should be consistent with international AI governance standards, providing a framework that facilitates global cooperation and adheres to best practices.

### Legal Compliance

It is essential to regularly update legal frameworks to address the evolving challenges posed by AI technologies. This includes establishing mechanisms for cross-border AI governance and dispute resolution, enabling efficient and effective management of issues that may arise across CEMAC member states. Such measures will ensure that the region remains adaptable and responsive to new developments in AI.

## VII.8. Fostering Innovation and Research

### Innovation Hubs

Establish CEMAC AI innovation centers in strategic locations across the region to serve as focal points for technological advancement. These hubs should provide



funding and resources to support AI startups and research projects, fostering a vibrant ecosystem for innovation and entrepreneurship.

### **Research Collaborations**

Encourage partnerships between universities in CEMAC and international research institutions to promote knowledge exchange and collaborative research. Additionally, support cross-border research projects within CEMAC to leverage regional expertise and address common challenges, enhancing the overall research capacity of the region.

## **VII.9. Adaptive Management**

### **Flexibility in Implementation**

Design governance structures with built-in flexibility to accommodate rapid technological advancements. This approach ensures that the framework can adapt to new developments and emerging technologies. Regularly reassess and adjust implementation strategies based on outcomes and evolving circumstances, maintaining relevance and effectiveness.

### **Learning and Knowledge Sharing**

Establish platforms for sharing best practices and lessons learned among CEMAC member states. This exchange of information will help improve AI governance across the region. Additionally, participate in international AI governance forums to stay informed about global trends and integrate these insights into regional practices.