

Enhancing the Responsible Integration of Artificial Intelligence in Electoral Processes in the Southern African Region

**Towards Inclusive, Transparent, and
Secure Elections**

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ABBREVIATIONS

ABIS	Automated Biometric Identification System
AGC	Annual General Conference
AI	Artificial Intelligence
BVAS	Bimodal Voter Accreditation System
BVR	Biometric Voter Registration
DPI	Digital Public Infrastructure
ECF-SADC	Electoral Commissions Forum of SADC (Southern African Development Community) Countries
EMB(s)	Election Management Body/Bodies
HITL	Human-in-the-Loop oversight
IEC	Electoral Commission of South Africa
INEC	Independent National Electoral Commission (Nigeria)
OCR	Optical Character Recognition
PII	Personally Identifiable Information
SPEC	“Strengthening Pan-African Capacities for Electoral Observation and Assistance” Project

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EXECUTIVE SUMMARY

As Artificial Intelligence (AI) becomes increasingly embedded in democratic systems, its impact on electoral processes within the Southern African region cannot be ignored. AI holds the promise of enhancing transparency and efficiency, yet it could pose a threat to democratic values by enabling disinformation, intrusive surveillance, and biased algorithms. While AI offers opportunities to ease and modernize electoral administration, enhance efficiency, improve voter engagement, and strengthen cybersecurity, it also poses serious risks to electoral integrity, public trust, and ultimately democratic stability if poorly governed. AI is not merely a technical innovation, but a governance and democracy issue with serious implications for citizen trust and confidence, institutional credibility, and sovereignty.

This policy brief arises from the deliberations of the 27th Annual General Conference (AGC) of the Electoral Commissions Forum of SADC Countries (ECF-SADC) that took place on 1–4 December 2025 in Eswatini with support from International IDEA and the EU under the theme, **“Artificial Intelligence in Elections: Threats and Opportunities.”** It is premised on six key themes: the context and urgency of AI in elections; opportunities for electoral management; threats and ethical risks; the evolving role and responsibilities of EMBs; the importance of regional cooperation and solidarity; and consolidated findings and recommendations. AI in electoral management is intended to achieve improved accuracy in voter registration and boundary delimitation; operational efficiency through predictive analytics and logistics planning; strengthened cybersecurity through real-time threat detection; expanded voter education using multilingual and accessible AI tools; and increased inclusion of youth, persons with disabilities, and hard-to-reach communities.

AI thus has transformative potential as a tool for improving elections, but care must also be taken while embracing it. Users must guard against risks such as the spread of AI-generated misinformation, disinformation, and deepfakes; heightened cybersecurity vulnerabilities; algorithmic bias; erosion of privacy, especially where robust data protection laws are lacking; widening digital divides; and threats to institutional autonomy arising from over-reliance on external vendors and technologies. In politically sensitive environments, these risks have the potential to delegitimize electoral outcomes, incite violence, and undermine democratic institutions.

Electoral Management Bodies (EMBs) in the Southern Africa region must remain the central custodians of electoral integrity in the era of AI and to fulfil this mandate, they must:

- i. Uphold core democratic values at all times during the electoral process.
- ii. Ensure transparency and accountability in how and where AI is adopted.
- iii. Preserve sovereignty over electoral data and systems by ensuring that all sensitive electoral data—such as biometric registries, voter rolls, and real-time results transmission data—are hosted on state-owned or state-regulated domestic servers rather than third-party, international clouds.
- iv. Strengthen technical and institutional capacity of EMB personnel in the use of AI in elections.
- v. Ensure human oversight in the application of AI in electoral processes.
- vi. Ensure ethical governance by putting AI governance protocols in place and implementing them in full.
- vii. Proactively uphold data protection and information safety and integrity throughout the entire election cycle.

INTRODUCTION

The ECF-SADC's 27th Annual General Conference theme reflects the growing recognition that AI is not merely a technological innovation but a governance issue. AI has profound implications for democracy, sovereignty, and public trust.

The AGC and its preceding roundtable (2 December 2025) came as AI is increasingly embedded in everyday life and across different sectors—from agriculture and health to banking and education. Electoral processes, the cornerstone of democratic legitimacy, are not immune to this transformation. AI offers opportunities for innovation to improve electoral management, but also introduces risks which, left unchecked, could destabilize democratic systems. The one-day seminar was attended by EMBs from the SADC region, partner organizations, academia, independent election practitioners, media and observers. It sought to explore the threats, opportunities and prospects presented by AI in electoral processes and specifically:

- to provide a platform for EMBs and experts to discuss the dynamics of AI and electoral integrity;
- to offer actionable insights and a framework for EMBs and other stakeholders to leverage AI for electoral credibility; and
- to identify strategies for strengthening institutional safeguards, legal frameworks, and regional cooperation to ensure AI serves democracy rather than undermining it.

The threads running through both the seminar and the annual conference were the importance of AI and the opportunities it presents; the threats; and therefore ways for EMBs in the SADC region to optimally introduce AI into their work. This policy paper synthesizes the policy-relevant reflections, challenges and recommendations derived from both events.

The roundtable was organized in partnership with International IDEA, supported by the EU's regional *Strengthening Pan-African Capacities for Electoral Observation and Assistance (SPEC) Project*.

Definition of key terms

AI: Artificial intelligence (AI) is technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy (Stryker and Kavlakoglu 2026).

Biometrics Voter Registration (BVR): Biometric Voter Registration (BVR) is the process of requiring eligible voters to go through some kind of biometric analysis for recording, be it fingerprint or iris scanning technology. BVR measures and analyses a voter's unique physical characteristics to verify their identity and their eligibility to vote (Garland and Iverson 2019). Biometric verification systems are examples of AI that use deep learning models to match biometric data to existing data sets; signature matching tools, also widely used in the USA, are an example of AI (Juneja 2024) that EMBs can use for assuring accuracy of electoral data.

Data sovereignty: refers to the view that data generated in, or passing through, national internet infrastructure should be protected and controlled by that state (AU 2022). Such data includes biometric registries and voter rolls.

Electronic voting: the option of using electronic means to vote in elections at a designated physical polling station, using direct electronic recording machines; or outside a polling station using the internet (ACE n.d.a).

Human-in-the-Loop (HITL) oversight: Where trained humans retain decision authority over high-risk AI agent actions, providing oversight through timely context, intervention authority, and defensible rationale (Olden 2026). For example, final decisions or actions such as updating a voter registry or flagging an electoral discrepancy must be reviewed and confirmed by a human election official.

Deep fakes / Synthetic media: Video, audio, or image files generated, modified, or distorted using deep learning techniques that convincingly replicate a person's likeness or voice, often used to create false or malicious election content (Weiner and Norden 2023).

1. AI TRENDS IN THE SADC REGION

1.1 Legal and policy frameworks

The integration and governance of AI across Africa is witnessed from the continental to the national level. At the continental level, the African Union's Executive Council adopted the Continental Artificial Intelligence Strategy in July 2024 during its 45th ordinary session (AU 2024). The strategy proposes a people-centric, development-oriented and inclusive approach around five focus areas and 15 policy recommendations emphasizing Ubuntu, digital sovereignty, human rights, and the protection of marginalized or vulnerable communities. One of the key focus areas is harnessing AI's benefits for African people, institutions, the private sector and countries, in line with the AU's Agenda 2063. Institutions such as EMBs in southern Africa can harness AI's potential in managing and promoting credible elections. SADC States can now use the strategy as a baseline in the development of their national AI protocols.

At the regional level, the SADC mirrors this continental vision through the SADC Digital Transformation Strategy (SADC 2022). The strategy acknowledges the role of technologies like high-performance computing, big data, and AI in modernizing state structures while emphasizing data sovereignty and the need to close the digital divide. Building on these regional and continental principles, SADC Member States are establishing individual national frameworks. For instance, South Africa's National Artificial Intelligence Policy Framework adopts a human-centric, "Futures Triangle" approach that seeks to embed transparency, bias mitigation, and data sovereignty into national policy (South Africa 2026). However, this draft framework was withdrawn on 26 April 2026 by the Minister of Communications and Digital Technologies over concerns that it was largely fabricated by AI (Reuters 2026). Mauritius' Digital Mauritius 2030 strategy focuses on five key pillars: digital government, ICT infrastructure, innovation, talent management, and cybersecurity—all geared towards embedding technology into the daily life of every Mauritian (Mauritius 2024).

Various African countries are integrating AI and digital tools in their electoral processes both in the administration and management of elections and oversight of the same. In South Africa, the Electoral Commission (IEC) has leveraged technology to facilitate the nomination and submission of party candidate lists online, parallel to manual submissions. The IEC and political parties also use social media platforms such as X, Facebook, and WhatsApp to promote voter education and registration, political campaigning, and debate on key national issues (Maseko 2024). Further, South Africa is in the process of rolling out Smart IDs which will be configured to end users' mobile phones. A new Bill is in the offing to reform the population register into a modern, digital-first instrument that will record the presence and biometrics of all people in the

country (Schreiber 2025). Similarly, the Independent Electoral Commission of Nigeria (INEC) has advanced the use of optical character recognition (OCR) and electronic result transmission technologies to promote transparency (INEC 2023). The Nigerian Parliament passed the Electoral Act, 2026 which formalizes the use of the Bimodal Voter Accreditation System (BVAS) as the mandatory method for voter accreditation, replacing older technologies, and gives INEC the authority to prescribe the specific manner for the transfer of results and accreditation data—thus entrenching electronic transmission of results (National Assembly 2026).

Beyond data verification, AI tools are increasingly being used to assist voters and monitor the information ecosystem. In Kenya and Ghana, civil society organizations and EMBs utilize AI-powered SMS and WhatsApp chatbots to help voters confirm registration details, with human oversight teams assigned to check translations into indigenous languages (Ahmed and Maru 2024). Facial recognition technology was used during Ghana's 2020 general election to verify voters and prevent impersonation (Ahmed and Maru 2024). Civil society platforms deploy natural language processing (NLP) applications to detect and monitor deepfakes and coordinated online disinformation, although these efforts face constraints during election periods when authorities resort to internet blackouts, as seen during the 2026 elections in Uganda (Belson 2026).

1.2 Progression of AI use in the region

AI is becoming central in the delivery of services in the SADC region, a trend is reflected in Digital Public Infrastructure (DPI). Countries are now shifting towards a Connected Government Operating System, an integrated digital framework that enables seamless coordination and data-sharing across government institutions to enhance public service delivery and cross-border interoperability (Smart Africa 2025). As highlighted by the 57th Parliamentary Forum (June 2025) and the Digital Transformation Strategy 2023–2030 (SADC 2022), the region is shifting toward a unified regulatory framework designed to harmonize ethical standards, strengthen cybersecurity against AI-driven disinformation, and ensure that technological advancement actively enhances public value in health and education. This trend reflects a transition from passive tech adoption to a proactive, value-based integration where investments in sovereign digital infrastructure and localized AI literacy aim to bridge the digital divide while safeguarding electoral integrity across Member States.

The adoption of AI within the SADC region has transitioned from being a mere administrative innovation to a strategic necessity—especially in elections. Some countries have been using Automated Biometric Identification Systems (ABIS) to remove duplicate registrations for several years—in South Africa's case, since 2016 (South Africa 2018). Similarly, most SADC countries have been using automated systems for biometric voter registration (BVR) and de-duplication of voter rolls. EMBs in the SADC region such as the Electoral Commission of South Africa (IEC) have partnered with technology platforms such as Google, Meta and TikTok, and civic organizations like Media Monitoring Africa, to combat AI-driven disinformation and other digital harms during elections (IEC 2024).

AI has the potential to enhance multiple areas of electoral management, such as voter education and mobilization, polling station allocation, election budgeting, voter identification and updating of voter registers/rolls, and monitoring of the election, which ultimately contribute to electoral integrity. AI is deployed through emerging technologies and innovation in this sector is growing rapidly. Even where EMBs are not using AI directly, their staff, beneficiaries, and political party stakeholders are largely doing so, which cannot be ignored.

Public trust in electoral processes remains a critical determinant of stability across the SADC region. The *SADC Principles and Guidelines Governing Democratic Elections* (SA DC 2015, objectives 2.1.3 and 2.1.4) emphasize holding credible elections and enhancement of electoral integrity across Member States. The increasing availability of AI tools capable of generating misinformation, fake news, manipulated audio-visual content and deepfakes poses a significant threat to this trust. False narratives about candidates, EMBs, voting channels or election results can easily be manufactured and circulated at massive scale.

Such AI-generated disinformation has potential to incite violence, discredit legitimate outcomes, delegitimize EMBs, and erode confidence in democratic institutions—especially in highly charged and politically sensitive environments. Given existing vulnerabilities in electoral management and wider information ecosystems (such as limited digital literacy in some communities, reliance on social media as a primary news source, and weak fact-checking infrastructure), the impact of AI-enabled deception in elections in southern Africa could be severe and destabilizing. When trust is compromised, rebuilding confidence in institutions becomes a long and difficult process; the currency of credible elections is built on how much trust the voters have in EMBs and supporting institutions.

AI is increasingly being integrated into political campaigns and communication strategies, particularly through digital platforms, data analytics, and targeted messaging. In the SADC region, Democratic Republic of Congo (DRC), Mozambique, and Namibia have not yet enacted comprehensive data protection legislation (Paradigm Initiative 2025), which poses significant risks to individual privacy. AI-driven micro-targeting allows political actors to segment voters by geography, ethnicity, socio-economic status, online behavior, and interests, enabling highly personalized campaign messaging (LaChapelle and Tucker 2023). While this could enhance voter outreach, civic awareness, and participation (especially among youth and urban populations), it also poses significant risks.

AI technology can be abused to breach voter privacy by exploiting personal data, to spread disinformation, and to manipulate voter sentiment—especially in countries where robust legal regulatory frameworks for data protection and digital campaigning are absent or nascent (Muli 2025).

Furthermore, fragmented messaging to different sets of audiences can breed echo chambers, intensify polarization, and undermine a common national discourse around elections. Unregulated AI-driven campaigning may further inflame divisions and weaken electoral fairness and transparency in countries and areas with sharp ethnic divisions and heightened political

tensions (Mutongoreni and Gwiza 2025). The rapid rise of online political advertising has fundamentally transformed the role of money in politics as campaigns shift from conventional transmission to digital platforms. Much as the messages can reach highly targeted voter groups at a minimal cost, this amplifies problems regarding the transparency and traceability of campaign expenditures (Sahoo 2024). Oversight bodies often struggle to monitor and enforce spending limits in real time because digital platforms allow for complex, decentralized spending involving opaque micro-targeted advertisements, foreign contributions, or unregulated cryptocurrency and fintech transactions (Adetula 2024).

1.3 Key considerations for EMBs on AI and elections

EMBs must work on developing robust regulatory and policy frameworks to govern the use of AI in elections, as these are essential for safeguarding democratic integrity. There are several key considerations that must take into account.

Privacy, data sovereignty and data protection

EMBs in Southern Africa process large volumes of personally identifiable information (PII) which is highly sensitive and with AI, increasingly prone to unlawful access. For example, in 2017, personal data of 30 million South Africans was leaked when a database containing citizens' ID numbers, contact details, addresses, and income estimates was exposed after a suspected hacking (BusinessTech 2017). EMBs must implement strict data minimization plans to ensure that AI systems collect and process only the minimum amount of personal data necessary for voter registration.

Additionally, data sovereignty must be preserved by keeping data hosting and processing localized: to comply with domestic data protection frameworks, and to mitigate the overreach of foreign jurisdictions and commercial entities. However, such localization of data storage ultimately depends on internal security, resilience and technical capacities. Excessively rigid localization requirements may inadvertently increase risks where domestic infrastructure lacks adequate cybersecurity safeguards, or where data is concentrated in a single environment without sufficient redundancy and disaster-recovery mechanisms. The most sensitive personal data (such as biometric voter registries) must be phased into highly secure servers managed under state authority, provided these can realistically guarantee and maintain the highest standards of modern cybersecurity.

It is equally important that voters fully understand how their data is used by algorithms, and that accessible, non-technical mechanisms are provided for citizens to review, correct, or opt out of automated profiling.

Inclusion and equity

Because AI models are trained on historical datasets that often contain systemic biases (replicating existing gender norms, racial stereotypes and other prejudices), their integration into electoral processes can inadvertently result in discrimination and exclusion (Hammar and Müller 2025). To prevent the false rejection of vulnerable groups, EMBs need to rigorously test biometric and facial recognition systems across diverse populations and achieve high-accuracy rates across all demographics, particularly among different age groups, genders, and skin tones. Furthermore, representational equity requires that generative AI tools used for voter education and engagement do not privilege dominant or colonial languages, but rather are trained to support rather than exclude indigenous and local language communities (SAnews 2025).

Legal compatibility and regulatory compliance

The implementation of any automated technology by an EMB must be rooted in the rule of law, constitutionalism and general human rights standards. Before deployment, EMBs must ensure that AI tools comply with regional and continental standards such as the African Charter on Democracy, Elections and Governance (AU 2007) and the Principles and Guidelines for the Use of Digital and Social Media in Elections in Africa (IEC 2022). The National electoral laws of EMBs in the region must be reviewed to ensure they are compliant with the above and there must be clear oversight by independent regulatory bodies capable of evaluating the algorithms and data sets, without compromising the constitutional independence of the electoral commission.

Human-in-the-Loop and accountability frameworks

To safeguard democratic processes from systemic automation failure, AI systems must never be granted absolute autonomy. EMBs must retain ultimate decision-making power by ensuring there is a mandatory “human-in-the-loop (HITL)” protocol whenever an AI tool flags anomalies (such as rejecting a candidate’s nominating signatures or flagging a voter registration as fraudulent) (Commonwealth Secretariat 2025). This human element ensures that final determinations are subject to human oversight, validation, and accountability. Equally important is establishing clear lines of accountability to determine liability among system developers, vendors and the EMB, in the event of an algorithmic failure. Therefore, AI deployment should be accompanied by robust audit trials, documentation requirements, and transparency measures—enabling independent review where necessary.

The HITL protocol must be dynamically adapted to the specific risk profile of each AI application. For high-risk, core electoral operations (such as utilizing machine learning to audit voter registers or to verify candidate nomination signatures), the risk of disenfranchisement is high. This requires HITL to function as an absolute, pre-facto gatekeeper where no automated flag takes final decisions without human validation. On the other hand, for lower risk tools like chatbots for voter information, a strict pre-facto human oversight may be operationally impractical. Here, governance should shift to a post-facto oversight model using localized human translation

teams and systemic guardrails to correct errors without destroying real-time responsiveness. EMBs must also establish fast and transparent administrative appeal channels to allow voters and political parties to challenge automated decisions effectively.

Vendor oversight and transfer of skills

EMBs frequently procure complex AI and biometric technologies from private entities, whose products are often opaque, resulting in the “black box” dilemma. EMBs’ procurement systems must demand full visibility of the proprietary source code, system architecture, and training datasets rather than relying solely on vendor intellectual property (Norden et al. 2019). Further, they should design procurement contracts that allow for skills transfer to their local staff and experts, to mitigate overdependence on the vendors.

Cyber-Security and backup

Because elections are sensitive processes, AI-driven electoral systems are prone to cyberattacks such as hacking (SAnews 2026). EMBs must shield training datasets against data poisoning attacks, where malicious actors intentionally feed corrupt information to manipulate or thwart system outputs. EMBs must retain robust, manual (paper) backups that allow the voting and tabulation process to continue uninterrupted in the event of digital failure. Furthermore, backend transmission systems and AI-supported databases must be subjected to rigorous, independent testing and ethical hacking assessments long before election day arrives (ACE n.d.b).

Trust, auditability and explainability

The legitimacy of an election hinges on transparency and the trust of all political actors during the cycle. EMBs must prioritize Explainable AI (IBM 2026) to ensure that the logic behind algorithmic decisions—such as the digital delimitation of constituency boundaries—is easily and clearly explained to non-technical stakeholders, including the judiciary and the electorate. There must be provision for independent audits where civil society organizations, political parties, and international observers are granted access to audit the systems through a deliberate process established by law. This will boost public trust in the electoral process.

Building partnerships

Regional collaboration through platforms like ECF-SADC can enhance knowledge sharing, harmonize standards, and enable coordinated responses to cross-border challenges. Building strong partnerships with technology companies, security agencies, academia, civil society, and international actors will further strengthen resilience, while transparent public communication ensures credibility and trust (OECD 2025). Above all, protecting voter data and ensuring the ethical deployment of AI tools internally by EMBs remain critical to sustaining legitimacy and public confidence in electoral processes.

2. OPPORTUNITIES OF AI IN ELECTORAL MANAGEMENT

AI presents significant and multifaceted opportunities for EMBs to modernize electoral processes, enhance administrative efficiency, and promote inclusive participation in ways that reinforce the integrity and legitimacy of democratic governance. As digital technologies increasingly shape civic engagement, AI-enabled tools can support EMBs in transitioning from largely manual, resource-intensive systems toward ones that are more adaptive, data-driven, and responsive. Across the globe, AI is being incorporated or integrated into core electoral functions ranging from data analysis and planning to voter engagement and system monitoring. This increase in saliency signals the global shift towards more technologically mediated electoral governance. However, these opportunities are not merely technical improvements; they carry broader implications for trust, inclusion, and state capacity, making their strategic adoption a central policy issue for the SADC region.

Operational efficiency

AI enables a fundamental shift from reactive, manual electoral management to predictive, automated, and continuously optimized systems. At the core of this transformation is AI's ability to process large and complex datasets with speed and precision. In voter registration, for example, machine learning algorithms can identify duplicate or fraudulent entries, detect anomalies and continuously update voter rolls—all of which assist in removing long-standing causes of electoral disputes. In many contexts, disputes over voter registers and constituency boundaries are among the most politically sensitive issues; improving their accuracy therefore has direct implications for electoral legitimacy and conflict prevention.

Similarly, AI can enhance boundary delimitation and polling station planning by integrating demographic, geographic, and population data to produce more equitable and efficient configurations. Research shows that AI-supported systems can streamline voter identification, consolidate records, and enable real-time monitoring of electoral processes, significantly improving transparency and administrative coordination (Cortés et al. 2023).

Beyond registration and planning, AI introduces automation into routine but critical administrative tasks such as document verification, ballot validation, translation of electoral materials, and results tabulation, reducing human error and increasing consistency. This is particularly important in SADC contexts where EMBs often operate under logistical constraints and high political pressure. By 2017, African countries accounted for more than half of all nations worldwide that had adopted biometric technologies in their electoral processes for the registration, authentication and identification of voters (Idowu 2021). That same year, Somaliland pioneered the implementation of an iris recognition-based biometric voting system.

This innovation was used to register voters and eliminate duplicate entries, thereby enhancing the credibility of the voter roll and reinforcing confidence in the integrity of the election (Idowu 2021). Countries such as Democratic Republic of the Congo (DRC) have adopted e-voting for elections (Idowu 2021).

Operational planning, forecasting and resource management

Elections are among the most logistically complex operations in public administration, requiring the coordination of personnel, materials, transportation, and security across diverse and often remote environments. AI-powered predictive analytics can transform this process by generating evidence-based forecasts of voter turnout, resource needs, and cost structures.

For instance, AI can model voter turnout patterns based on historical and real-time data; optimize the allocation of polling stations and staff; predict logistical bottlenecks and propose mitigation strategies; and improve timing and routing of sensitive materials such as ballots. Moreover, AI can be used to predict election costs and provide indicative budgeting and logistics plans, from preparation stages through to transmission of election results (Idowu 2021).

These capabilities allow EMBs to move from static planning models to dynamic, scenario-based decision-making, significantly reducing inefficiencies and last-minute disruptions. Evidence suggests that AI is already being used in electoral contexts to support planning, administration, and oversight functions that were previously labor-intensive and time-consuming. For EMBs often operating under constrained budgets and tight timelines, AI-supported planning tools can improve preparedness and operational precision. For example, the Malawi Electoral Commission (MEC) while organizing the 2025 elections relied on advanced election technologies from Smartmatic to reinforce key phases, from voter registration to results transmission. MEC deployed a biometric registration platform to build a new voter roll. The system captured fingerprints, facial images, national ID scans, and biographic data from more than seven million citizens in just three months (Smartmatic 2025).

Similarly, for EMBs in the SADC region, many of which operate under budgetary constraints, this has important implications. More efficient resource allocation not only reduces costs but also enhances the perceived professionalism and credibility of elections, which is a critical determinant of public trust.

Voter education and public engagement

Traditional voter education approaches, that are often reliant on static messaging through radio, print, or periodic campaigns, struggle to keep pace with rapidly evolving information environments. AI addresses this limitation by enabling continuous, real-time communication tailored to the needs of different audiences.

AI-generated multimedia content offers EMBs in the SADC region innovative avenues to widen voter education and civic engagement. From interactive digital campaigns to dynamic educational materials in multiple languages and formats, AI tools can deliver tailored information to different demographic groups. Information can be shared in real time and target different voters, for example by using web-based chatbots (Makgale 2024).

AI tools can be used to help determine the kind of electoral information consumed by different audiences and to design targeted messages (Juneja 2024). For example, in Nigeria, platforms such as *iVerify* use AI to detect and counter election-related misinformation, tracking its spread online and helping to deliver targeted, verified facts to the public (AUDA-NEPAD 2024b). In South Africa, civil society networks such as *Afriwitness* use data processing tools to monitor election-related social media sentiment (AUDA-NEPAD 2024a) while in Kenya, the Independent Electoral and Boundaries Commission (IEBC) has explored using automated chatbots on platforms like WhatsApp to answer questions and direct users to specific information accordingly (Hammar and Martino 2025).

All this can combat voter apathy, debunk misinformation, and promote knowledge on electoral rights, processes, and procedures, especially key deadlines. By meeting citizens where they are—particularly on digital platforms such as social media platforms, websites, and Short Message Service (SMS) among others—EMBs can widen voter education, which is a key component in fostering informed participation across all voters in all contexts. In this sense, AI assists in making EMBs active participants in the information ecosystem, capable of shaping narratives rather than merely responding to them.

Accessibility and inclusion: reducing structural barriers to participation

Southern Africa is a region defined by diversity of cultures and economies, where deep linguistic diversity creates both a rich cultural heritage and significant communication barriers between communities. South Africa has 12 official languages, for example—but remains the most unequal country in the world by Gini coefficients (CHR/Global Center on AI Governance 2026). The majority of its digital applications, government portals and AI tools are designed primarily in English or Afrikaans, which excludes isiZulu and isiXhosa speakers (Primus 2025). The Internet access gap continues to widen within several countries, with operators targeting urban markets; rural dwellers are less connected to the Internet. For example, in Lesotho about half of urban areas are connected but 83 percent of the rural population is not. In Tanzania, 86 percent of rural dwellers remain unconnected to the Internet compared to 44.6 percent in urban areas (Mothobi et al. 2017).

In a region characterized by linguistic diversity, geographic inequality, and varying levels of digital literacy, AI holds the potential to expand electoral participation. AI tools can significantly reduce barriers faced by marginalized groups by adapting electoral information to diverse needs.

Trained on frequently asked questions as well as electoral information, chatbots and other AI-enabled communication platforms can disseminate voter information in multiple languages, including local vernaculars, while adapting content for literacy levels and accessibility needs (Kehinde et al. 2024). For example, the Independent Electoral Commission (IEC) of South Africa had an automated chatbot that provided automated responses 24/7 during the 2024 elections (IEC 2025). AI tools can also support persons with disabilities through voice-enabled systems (IEC 2025), sign-language translation tools, and accessible digital interfaces. For young people, who form a significant share of the voters in SADC countries, targeted AI-powered platforms can deliver engaging, relatable content that encourages their participation in the electoral process.

Therefore, AI tools can help EMBs to move beyond uniform communication strategies toward differentiated and inclusive service delivery, ensuring that electoral information is not only available but usable by all citizens. By addressing structural inequalities in access to information, AI contributes to a more substantively inclusive democracy.

Cybersecurity and system resilience

As electoral processes become more digitized, their exposure to cyber threats increases. AI can provide advanced tools to enhance system resilience, threat detection, and response capacity.

Worldwide, cyber threats to electoral processes are becoming increasingly sophisticated. As a line of defense, AI-driven anomaly detection tools can provide real-time monitoring of voter registers, results transmission systems, and electoral IT infrastructure. EMBs can build tools that identify irregular patterns, suspicious intrusions, or potential manipulation early. AI can be used to simulate attack scenarios, identify system vulnerabilities, and strengthen defensive protocols before elections take place. This is particularly important in high-stakes electoral environments where even minor disruptions can have disproportionate political consequences.

Enhanced cybersecurity capacity is essential to preserving the integrity of election data and maintaining public trust in election processes. For example, EMBs that would venture into online voting systems might use AI-based facial recognition software for identification, develop models to detect suspicious activities on their websites and also scan for cybersecurity threats to protect the integrity of servers (Juneja 2024). In the case of Ghana (IEC 2024) face recognition technology was deployed for voter verification, as it was in Uganda (Endeavour Uganda n.d.).

3. THREATS, RISKS, AND ETHICAL CONSIDERATIONS OF AI IN ELECTIONS

While AI presents important opportunities to strengthen electoral processes, it also brings a range of interrelated risks which, if not properly governed, could in general undermine electoral integrity, democratic legitimacy, and political stability across the SADC region. What is more, these risks are not isolated; rather, they interact and reinforce one another, requiring a holistic governance response grounded in institutional capacity, regulatory clarity, and ethical safeguards.

Core threats to electoral integrity

One of the most immediate and visible risks of AI in elections lies in its capacity to generate and disseminate mis- and dis-information and deepfakes, with relative ease and at a large scale. Generative AI tools can produce highly convincing fabricated content, including manipulated videos, synthetic audio, and false narratives about candidates or electoral processes. This can spread exponentially across a variety of social media, messaging platforms, and traditional communication channels (ACE n.d.). Unfortunately, this significantly lowers the cost and increases the speed of information manipulation, making it difficult for electoral authorities and fact-checkers to respond in real time.

In politically sensitive environments across SADC, as elsewhere, such rapid spread of malicious information does not merely misinform; it can actively reshape voter perceptions, deepen political polarization, and erode trust in electoral institutions. Deepfakes, in particular, create what has been described as a “liar’s dividend”, where even authentic information can be dismissed as fabricated, thereby weakening the shared basis of truth necessary for democratic deliberation (Schiff, Schiff and Bueno 2024). Hence, deepfakes and coordinated disinformation campaigns can incite election-related violence, delegitimize lawful outcomes, and destabilize communities (Omilusi 2025). Given the region’s history of contested elections and misinformation-fueled tensions, this risk is particularly high and requires clear mitigation strategies.

Closely linked to informational threats are cybersecurity vulnerabilities. AI is not only a defensive tool, it can also be weaponized. With their long histories of consistently fighting cyberattacks, EMBs remain targets. Sophisticated players may use AI for phishing and social engineering, for example, to launch targeted cyber-attacks on voter registers, results management systems and communication systems (Sangfor Technologies 2024). Such intrusions may aim to steal data, disrupt processes, alter information, or create perceptions of manipulation even where systems remain intact. AI also can be used to overwhelm EMBs’ information systems by lodging information requests and electoral complaints.

Structural and governance risks

Beyond direct threats to electoral processes, AI introduces deeper structural risks that affect fairness, inclusion, and institutional control.

In this regard, a central concern is bias and data governance. AI systems are only as fair as the data and assumptions behind them. If these inputs are incomplete, unrepresentative, or biased, AI applications will disadvantage particular political actors, regions, or demographic groups. Such distortions can affect how information is distributed, how voters are profiled, and how administrative decisions are automated (Al-Saadi 2024). Moreover, because these systems depend on vast datasets, they raise serious ethical concerns around mass data collection, consent, and individual privacy. Given that some SADC countries lack data protection frameworks, these practices carry significant legal, reputational, and human rights implications.

Equally significant is the digital divide across the SADC region. Unequal access to digital infrastructure, devices, connectivity, and digital literacy across SADC means that AI-driven electoral innovations may not benefit citizens equally. Much as the *SADC Declaration on Information and Communication Technologies* (SADC 2001) establishes a coherent policy on bridging the digital divide between Southern Africa and the rest of the world, only four percent of SADC residents are Internet users, although this varies by Member State (SADC n.d.) and demographic group. The SADC Digital Transformation Strategy recognizes that digitalization and AI are key enablers of the 2030 development agenda and present an opportunity to bridge socio-political inequalities (SADC 2022).

Another critical issue is the risk to institutional autonomy and sovereignty. AI adoption in electoral contexts in most cases hinges on external vendors, global technology firms, and international partners. While these actors can provide valuable expertise and infrastructure, overreliance on them introduces significant sovereignty risks (Sayankina et al. 2025). EMBs have limited internal capacity to maintain ownership, control, and oversight of electoral data and AI-enabled core systems; they risk ceding authority over processes that are foundational to democratic legitimacy. AI may thus directly erode state sovereignty if the states have no robust systems to manage it (Sayankina et al. 2025). Vendor dependency not only undermines institutional autonomy but also heightens exposure to sensitive data breaches and erodes the long-term capacity of EMBs to innovate independently.

For EMBs in southern Africa, this challenge calls for cultivation of in-house expertise, investment in local capacity building and sustainable procurement models. Regional cooperation further strengthens resilience by pooling knowledge, harmonizing standards, and ensuring that AI adoption reflects collective priorities rather than external agendas. Most importantly, AI must be deployed in ways that reinforce and not replace EMB authority. Transparency, accountability, and human oversight are indispensable safeguards to mitigate risks, preserve trust, and ensure that technological innovation serves democratic governance rather than compromising it.

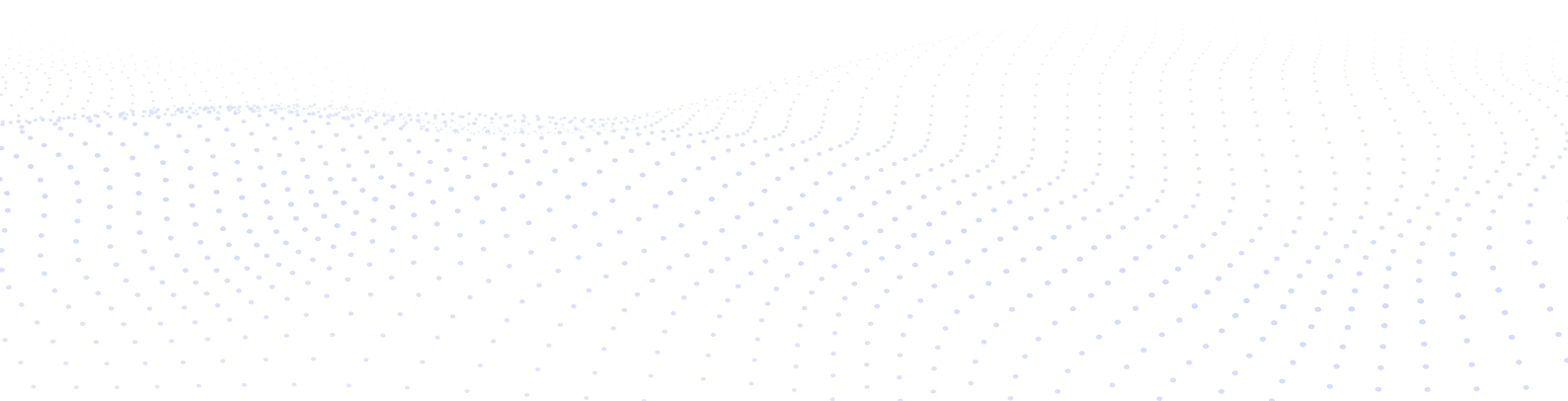
Ethical considerations and democratic safeguards

The risks outlined above converge into a set of fundamental ethical challenges that must guide the governance of AI in elections. At their core are issues of fairness, transparency, accountability, and respect for fundamental rights.

AI systems used in electoral contexts must not operate as opaque mechanisms that shape political behavior without public scrutiny. Transparency in how these systems function, including how data is collected and used, is essential to maintaining public trust. Similarly, accountability mechanisms must ensure that both public institutions and private technology providers can be held responsible for the impacts of AI deployment.

Ethical considerations require that AI systems do not reinforce existing inequalities or introduce new forms of discrimination, whether through biased algorithms or unequal access to digital tools. Strong safeguards must be in place to protect individual privacy and prevent the misuse of personal data for political manipulation.

Critically, human oversight must remain central to all electoral processes. AI should support, not replace, human decision making, particularly in areas that are consequential and affect electoral outcomes and democratic legitimacy.



4. CRITICAL FACTORS FOR EMBS ADOPTING AI IN ELECTIONS

Broadly speaking, EMBS remain the bedrock of electoral integrity and therefore emerge as central to ensuring that AI is governed in a manner that protects it. Specifically, across the SADC region, EMBS also continue to serve as the primary custodians of legitimacy, and democratic stability. As AI becomes increasingly embedded in political communication, electoral administration, and public discourse, the role of EMBS becomes even more critical. Their leadership, preparedness, and ethical stewardship will determine whether AI strengthens or undermines democracy within the region. EMBS' responsibilities in the AI era include:

Ensuring governance of AI systems

As the rapid integration of AI, automated biometric verification, and digital public infrastructure advances faster than institutional oversight capacities, EMBS can no longer afford to be passive consumers. Deploying the AI tools within a regulatory void leaves EMBS vulnerable to vendor lock-in, data poisoning, and severe legal challenges over automated profiling or discriminatory algorithmic biases. To prevent such failures and safeguard institutional independence, EMBS must proactively establish formal, pre-deployment AI governance systems anchored in the rule of law and constitutionalism: and thus transform emerging technology from an administrative risk into a sovereign institutional shield. As earlier discussed, EMBS can borrow from Nigeria, where it enacted the Electoral Act, 2026 to anchor the Bimodal Voter Accreditation System (BVAS) and delegated authority within a transparent, legally binding framework (National Assembly 2006).

An effective EMB AI governance framework should be organized around at least five operational pillars that strategically align with regional and continental frameworks. First, it must establish legal compatibility by updating national laws to comply with continental human rights standards like the African Charter on Democracy, Elections and Governance (AU 2007; the African Union's Continental Artificial Intelligence Strategy (2024) which promotes digital sovereignty, human rights protections and ethical, Africa-centric AI development; and the SADC Digital Transformation Strategy (2023–2030) to actively harmonize ethical standards and firmly safeguard electoral integrity across Member States (SADC 2022).

Second, it must enforce a strict HITL protocol, ensuring that final legal determinations regarding automated anomalies such as candidate signature invalidations or fraudulent registrations are validated by human input. Third, procurement rules must mandate absolute vendor oversight and sovereign control by requiring private tech firms to grant full visibility into proprietary source code, system architecture, and training datasets, alongside contractually enforced, mandatory skills-transfer clauses.

Fourth, the framework must implement auditable data security through strict data minimization plans, localized data hosting to preserve national sovereignty, rigorous penetration testing, and a non-negotiable mandate to retain non-digital, manual paper backups so that voting and tabulation can survive a total systemic failure. Finally, the system must prioritize explainable AI and public audits, ensuring that the algorithmic logic behind critical tasks like voter de-duplication or constituency boundary delimitation is transparent and accessible to non-technical stakeholders, the judiciary, and independent civil society observers.

Upholding democratic values and principles

In adopting and responding to AI, EMBs in the SADC region must remain anchored in foundational values: independence, transparency, professionalism, fairness and integrity, in line with international and continental standards embedded in instruments such as the Africa Charter on Human and People's Rights and the African Charter on Democracy, Elections and Good Governance (AU 1981; AU 2007). These principles should guide any technological innovation, ensuring that AI tools serve the public interest rather than political expediency.

EMBs must ensure that any deployment of AI tools strengthens public interest objectives, reinforces constitutional mandates, and enhances confidence in electoral outcomes. In environments where electoral legitimacy is often contested, maintaining visible adherence to these principles is essential to preserving trust.

Building technical capacity and institutional readiness

A recurring challenge identified across electoral contexts is that AI technologies are advancing faster than institutional capacity to understand and govern them. For EMBs to manage AI effectively, they must cultivate strong internal capacity. This includes technical literacy among leadership and staff, specialized expertise in data governance, cybersecurity, digital monitoring, and AI risk management, as well as the ability to critically assess vendor solutions. Capacity building is essential to ensuring autonomy, reducing dependence on external actors, and enabling EMBs to anticipate, understand, and respond to AI-related challenges. Regional cooperation within ECF-SADC can also support shared learning, harmonization of standards, and peer capacity enhancement.

Transparency and Accountability

Public trust in elections depends on the openness and accountability of EMBs. As AI systems are introduced into electoral processes—whether for election management, cybersecurity, or communication—EMBs must ensure that procurement processes, partnerships, and operational decisions are transparent and subject to oversight. Clear regulatory frameworks, published guidelines, and public participation in the procurement, piloting, and testing of these technologies are key to public legitimacy and mitigating its opposite, public suspicion.

The fact that many AI systems operate in ways that are difficult to understand or explain can fuel suspicion, misinformation, and distrust—making the transparency challenge tougher. Moreover, global experience shows that partnerships with technology platforms are often ad hoc and lack enforceable accountability mechanisms, leaving EMBS in a structurally weaker position (Jarnecki & Mott, 2025)

To mitigate these risks, EMBS should promote regulatory clarity, publish guidelines on AI use, and create avenues for stakeholder engagement which include civil society, media, and academia in the testing and validation of AI systems.

Public Education and Information Integrity

As indicated earlier, electoral environments are more and more shaped by AI-driven dis- and misinformation and deepfakes which pose significant challenges to electoral communication in SADC countries. EMBS must therefore adopt a proactive public outreach role, providing timely, accurate, and accessible information to counter false narratives and prevent confusion or unrest—ultimately protecting elections. This includes strengthening voter education initiatives in collaboration with media, civil society, and private fact-checking entities. It means ensuring responsible communication reaches voters and the public in rural, urban, youth, elderly, and marginalized constituencies. Effective public education promotes civic consciousness and public participation not only in elections but wider democratic processes.

In this context, EMBS must position themselves as trusted sources of authoritative information, capable of countering false narratives before they escalate into broader legitimacy crises.

Sovereignty and institutional autonomy

As EMBS explore AI solutions, they need to safeguard institutional sovereignty. Over-reliance on private vendors, foreign technologies, or politically aligned actors may compromise control over sensitive electoral systems and data that are central to democratic integrity. Such reliance can create vulnerabilities where external interests, rather than national priorities, shape the trajectory of electoral innovation. To ensure ownership and long-term autonomy, EMBS across the SADC region must therefore prioritize responsible procurement, strong data governance frameworks, regional collaboration, and sustainable capacity building. Without these safeguards, EMBS risk ceding control over sensitive electoral infrastructure and data, an outcome that could undermine national sovereignty as well as EMB independence and democratic legitimacy.

5. RECOMMENDATIONS

This section synthesizes the key recommendations generated during the forum and draws conclusions. The recommendations are structured under five broad issue clusters:

1. AI and efficiency of electoral administration
2. AI-driven risks and their impact on electoral integrity
3. EMBs, AI governance and democracy in the digital era
4. Regional solidarity, resilience and learning for EMBs across SADC
5. AI, citizen engagement and digital inclusion

Table 1 below provides a summary of the key issue cluster, implications, and strategic recommendation.

Table 1: Key issues and strategic recommendations

Key Issue	Recommendations
1. Efficiency of electoral administration <i>Manual systems are prone to human error and inefficiency, leading to potential disputes over election results.</i>	Routine joint meetings, peer learning, and cross-border information exchange. Coordinate on AI risks with shared early-warning systems; standardize regional AI election guidelines with ethical safeguards. Active participation in observation missions and sharing of findings.
2. AI-driven risks and impact on electoral integrity <i>AI-driven threats, such as deepfakes, misinformation, and cyber-attacks, undermine public trust and institutional stability.</i>	SADC member states together with ICT agencies should consider enacting comprehensive AI governance legislation and rapid response frameworks to legally address and mitigate deepfake threats. EMBs and SADC Member states should consider establishing AI-driven monitoring units to detect deepfakes, coordinated disinformation, and cyber intrusions during electoral cycles. EMBs should consider implementing minimum cybersecurity standards, including encryption, penetration testing, and independent system audits.

Key Issue	Recommendations
3. EMB and AI governance and accountability <i>EMBs often lack the specialized technical expertise and financial independence required to manage complex AI systems.</i>	EMBs should consider developing EMB-specific AI governance frameworks covering procurement, accountability, data ownership, and liability. EMBs should consider investing in long-term internal capacity-building of their staff on AI literacy, ethics, and data governance. SADC Member states should consider ring-fencing funding for electoral technologies to protect EMB independence and reduce political or vendor influence.
4. Regional solidarity, resilience and learning <i>Inconsistent standards across SADC borders allow digital threats to spread and exploit the weakest links in the regional ecosystem.</i>	SADC Member states should consider the adoption of SADC-wide minimum standards on AI use in elections, including data protection, transparency, and system security. EMBs in SADC should consider establishing a regional EMB knowledge-sharing platform for best practices, risk alerts, and lessons learned. EMBs should consider conducting joint regional cybersecurity simulations to test preparedness against cross-border digital threats.
5. AI, citizen engagement and digital inclusion <i>The “digital divide” risks disenfranchising rural, elderly, and disabled voters if AI tools are not deployed with an inclusive focus.</i>	EMBs should consider deploying inclusive AI-enabled voter education tools that are multilingual, accessible, and optimized for low-bandwidth contexts. SADC member states should consider making it mandatory to develop digital inclusion and human rights impact assessments prior to AI deployment in electoral processes. EMBs should guarantee non-digital alternatives for all essential electoral services to prevent disenfranchisement of voters where the deployed technologies fail.

6. CONCLUSION

This brief has highlighted the profound impact AI is poised to have on electoral processes within the SADC region. AI offers transformative potential to enhance efficiency, inclusivity, transparency and security of elections. At the same time, it presents significant risks including misinformation, cybersecurity threats, algorithmic bias, and institutional vulnerabilities that require proactive governance and strategic mitigation.

These findings are consistent with the African Union's Continental Artificial Intelligence Strategy (AU 2024), which promotes an ethical and Africa-centric approach to AI governance based on responsibility, transparency, and human rights. The AU framework highlights how crucial governance is to guarantee that AI advances sustainable development, security, and peace. In a similar vein, the African Commission on Human and Peoples' Rights advocates for AI legislation that upholds fundamental rights and dignity, which is especially pertinent in the electoral setting when privacy and political rights collide. Adoption of AI in voting systems must be guided by SADC Vision 2050 (SADC 2021), an overall development strategy that places a high priority on inclusive growth, democratic consolidation, and regional integration—which must guide the adoption of AI in electoral systems in the SADC.

To realize this vision, EMBs and SADC Member States must institutionalize strong AI governance frameworks that reflect these regional and continental commitments. This necessitates coordinated efforts to create precise legal and policy frameworks suited to election settings, make sustainable investments in cybersecurity and digital infrastructure, and increase the institutional and technical capability of EMBs. Promoting inclusive voter education and strengthening AI literacy is equally crucial to closing the digital divide and guaranteeing that every person can participate actively in political processes.

Further, strengthening regional cooperation through harmonized policies, peer learning, and coordinated responses to AI-driven risks will enhance collective resilience and protect the credibility of elections across SADC countries. Ultimately, AI must be harnessed as a transparent, accountable, and ethical tool that supports democratic integrity, reinforces public trust, and preserves the impartial authority of EMBs.

SADC member states will be better equipped to handle digital electoral challenges, protect national sovereignty, and hold credible, free, and fair elections by coordinating these strategic initiatives with continental and regional frameworks. This will fulfill both the objectives of SADC Vision 2050 and Africa's wider development goals.

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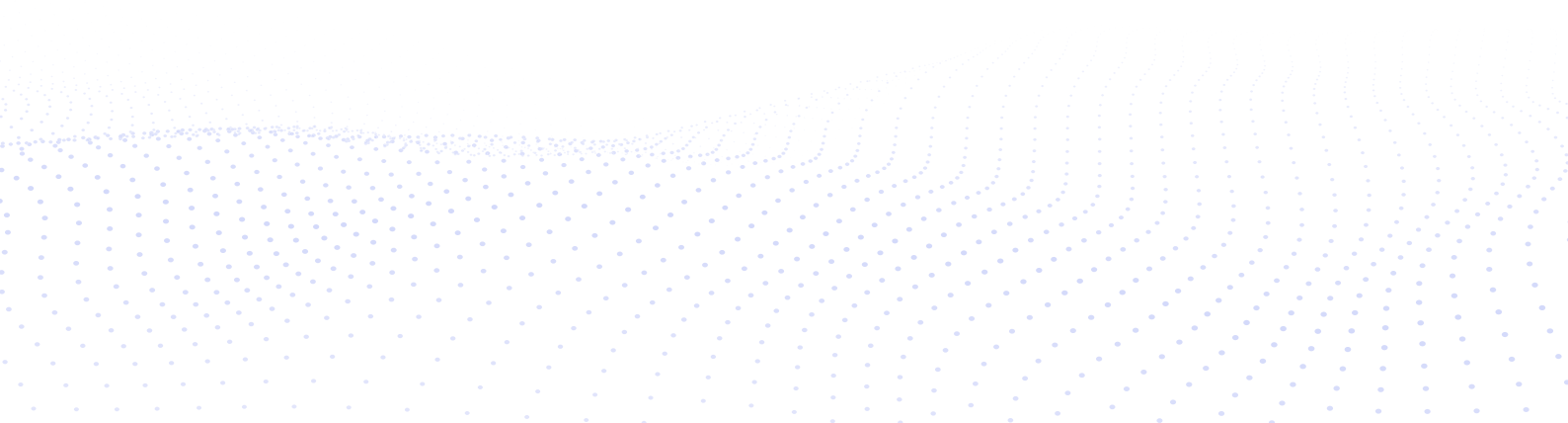
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AI is poised to significantly transform electoral processes across the SADC region through improved efficiency, inclusivity, and transparency, among other things. On the other hand, these transformations are accompanied by potential risks that could undermine electoral processes and democratic consolidation. Some of these risks include mis- and dis-information, cyber-attacks and algorithmic bias. As such, intended primarily for policymakers and EMBs, this paper, therefore, proposes concrete recommendations to effectively harness AI in elections. It calls on EMBs and SADC Member States to strengthen their legal and policy frameworks, invest in cybersecurity and digital infrastructure, build institutional and technical capacity, and promote regional cooperation.