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Countering Disinformation to Build Trust in Africa's Digital Payment Systems for Sustainable Development

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The Future of Digital Finance

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Key Points

- **Africa's Digital Payment Leadership:** Mobile money platforms like M-Pesa, MTN MoMo, and Nigeria's eNaira have positioned Africa as potential a global leader in digital payment innovation, enabling rapid financial inclusion and supporting climate-aligned development.
- **Disinformation as a Threat:** False narratives about Central Bank Digital Currencies (CBDCs), green finance, and climate-fintech programs risk eroding public trust, stalling adoption, and undermining cross-border cooperation.
- **Weak Information Resilience:** Many African countries lack robust infrastructure, policies, and coordination mechanisms to counter financial and environmental disinformation, leaving citizens and markets vulnerable.
- **Opportunity for Integrated Action:** Combining regulatory innovation, public education, and coordinated fact-checking systems can strengthen digital trust and accelerate sustainable development.
- **Multi-Stakeholder Solutions:** Regional hubs, climate-fintech literacy campaigns, cross-border cooperation, and public-private partnerships are essential to protecting both financial systems and environmental progress.

Introduction

Africa's rapid adoption of digital payment systems has been nothing short of transformative. Platforms such as Kenya's M-Pesa, Ghana's MTN MoMo, and Nigeria's eNaira have expanded financial inclusion, reduced transaction costs, and opened new avenues for economic participation. Beyond economic impacts, these platforms are increasingly tied to climate-aligned development goals, enabling the distribution of clean energy credits, microloans for sustainable agriculture, and investments in green infrastructure.

However, this progress is under threat. The rise of disinformation — ranging from conspiracy theories that CBDCs are tools for government surveillance, to false claims about “green scams” in climate-fintech projects — can undermine trust in digital payment systems (Murphy 2024). In countries where financial literacy and digital literacy levels vary widely, even small-scale misinformation campaigns can significantly reduce adoption rates and erode confidence in both domestic and cross-border payment platforms.

This policy brief examines the intersection of digital payments, disinformation, and sustainable development in Africa. It argues that safeguarding the credibility of financial innovations is not solely a technical or regulatory challenge — it is an information integrity challenge. Drawing on examples from Kenya, Ghana, and Nigeria, the brief identifies current vulnerabilities and proposes a set of coordinated policy measures to protect digital finance as a driver of the Sustainable Development Goals (SDGs).

The Promise and Vulnerability of Digital Payments in Africa

Over the past 15 years, Africa has positioned itself as a global leader and innovator in mobile and digital payment systems. The continent's rapid adoption of mobile money has transformed the way millions of people transact, save, and access financial services — often bypassing traditional banking infrastructure (Willige 2023). According to the Global System for Mobile Communications (GSMA) 2024 Mobile Economy Report, sub-Saharan Africa now accounts for approximately 70% of the global \$1.3 trillion in mobile money transaction value, underscoring the scale and significance of this digital financial revolution (GSMA 2024). Countries such as Kenya, Tanzania, Ghana, Nigeria, and Uganda have spearheaded this growth, with mobile money accounts exceeding the entire population of many developed nations.

The impact of mobile payments extends well beyond everyday transactions. These platforms have been instrumental in expanding access to credit for small businesses and individuals who traditionally lacked collateral or formal banking relationships. Additionally, mobile money has facilitated seamless cross-border trade within regional economic communities such as the East African Community (EAC) and the Economic Community of West African States (ECOWAS), reducing transaction costs and promoting economic integration (Omowole et al. 2024).

In recent years, digital payment platforms have increasingly become the backbone for climate-focused financial products that support sustainable development goals (SDGs) (Perera et al. 2024). Several innovative applications have emerged:

Tokenized Green Bonds: Digital payment infrastructure is enabling the issuance of tokenized green bonds, which allow micro-investors to pool small amounts of capital to finance renewable energy projects such as solar farms or wind turbines. For instance, the Green Token Initiative in Kenya facilitated the sale of over \$15 million in tokenized bonds within its first year, democratizing investment opportunities traditionally reserved for institutional investors (Aldweesh 2025). This model empowers ordinary citizens to directly participate in climate mitigation efforts, aligning financial inclusion with environmental stewardship.

Pay-As-You-Go (PAYG) Clean Energy Services: These services allow rural and off-grid households to purchase solar energy incrementally using mobile money. PAYG solar companies like M-KOPA (Kenya) and Lumos (Nigeria) leverage mobile payment platforms to lower upfront costs and enable real-time usage monitoring (Otuko et al. 2024). As of 2023, M-KOPA reported over 1 million PAYG solar units in operation across East Africa, translating to reduced reliance on fossil fuels and improved energy access for low-income families.

Climate Insurance Products: Digital payments also support parametric insurance products designed to provide swift payouts to smallholder farmers and pastoralists affected by climate shocks such as droughts or floods. In Ghana, the Kilimo Salama initiative has integrated mobile payments to automate claim disbursements, enhancing resilience in vulnerable

agricultural communities (Kinoti 2025). Since its launch, Kilimo Salama has insured over 200,000 farmers, demonstrating the potential of fintech to strengthen adaptive capacity.

Despite these transformative benefits, the very success and rapid uptake of digital payment platforms linked to climate finance make them attractive targets for disinformation campaigns that undermine public confidence and stall progress as seen in the box below.

In **Nigeria**, during the rollout of the Central Bank's eNaira digital currency in 2022, social media platforms were rife with unfounded claims suggesting that the government could use the eNaira to "seize" or freeze personal savings arbitrarily. These rumors gained significant traction on WhatsApp and Twitter, feeding public mistrust and hesitancy to adopt the digital currency (Ree 2022). Surveys conducted by the Nigerian Communications Commission in late 2022 found that nearly 40% of urban respondents expressed concerns about privacy and control over their funds with the eNaira, directly linked to misinformation narratives (Abdullahi et al. 2024). This slowdown delayed the eNaira's integration into broader financial and climate-related services, impeding the government's efforts to digitize and green its economy.

In **Kenya**, a well-organized smear campaign targeted mobile-based green bonds linked to agroforestry projects. Disinformation circulated alleging that these green bonds were a foreign plot designed to take control of Kenyan farmland under the guise of environmental conservation (McKay 2022). This narrative not only sowed suspicion among rural landowners but also undermined legitimate investment programs like the Kenya Agricultural Carbon Project, which had successfully mobilized \$10 million in green finance by 2023 (Gicheru 2023). The campaign spread largely via encrypted messaging groups and local radio stations, illustrating the multi-channel nature of disinformation dissemination.

In **Ghana**, false information about a so-called "climate tax" being applied to mobile transactions caused widespread confusion and even led to public protests in early 2023 (Abounabhan 2024). Many citizens conflated this disinformation with the government's unrelated digital levy proposals, which aimed to tax telecommunications services to fund social programs. The conflation caused political backlash and delayed digital taxation reforms that could have financed climate adaptation projects (Kokoroko and Savage 2022). This episode highlighted the fragile relationship between digital finance, public perception, and policymaking.

The examples above underscore how disinformation in Africa's digital payment ecosystems is not a fringe problem but a systemic challenge with real economic and social costs.

The vulnerabilities that enable such disinformation to spread are deeply structural:

- **Low Financial and Digital Literacy:** Despite growing mobile money usage, many users lack a clear understanding of how digital financial products work, especially the more complex climate-linked instruments. According to the World Bank's 2023 Global

Findex data, only about 30% of adults in sub-Saharan Africa feel confident managing digital financial products independently (WEF 2022). This gap makes individuals susceptible to misleading narratives.

- **Limited Fact-Checking Capacity:** Fact-checking organizations and investigative journalism remain underfunded and often concentrated in urban centers. In rural and peri-urban areas where disinformation frequently takes root, there is little capacity to verify claims or counter falsehoods in real time (Heffernan 2024). A 2023 report by the Poynter Institute found that while African fact-checking organizations are growing in number, only about 30% reported having dedicated resources to address misinformation on specialized topics such as finance and environmental issues, highlighting significant capacity gaps in emerging and complex domains like fintech and climate misinformation (Poynter 2023).
- **Rapid Spread on Encrypted Messaging Apps:** Platforms like WhatsApp and Telegram, widely used across Africa, provide fertile ground for the rapid and often anonymous dissemination of disinformation (Mare and Munoriyarwa 2025). Their encrypted nature makes content moderation difficult, allowing false narratives to multiply unchecked. For example, WhatsApp has over 95% penetration rates across much of the continent including Kenya (97%), South Africa (96%), and Nigeria (95%), making it a primary vector for disinformation about digital payments (Tyntec 2022).

These challenges not only threaten the stability and integrity of Africa's digital financial systems but also have broader implications for climate action and regional economic integration. When trust in digital platforms erodes, participation in green finance mechanisms diminishes, undermining efforts to mobilize climate capital at scale. Moreover, mistrust fueled by disinformation can exacerbate cross-border tensions and hinder harmonized digital financial policies essential for the African Continental Free Trade Area (AfCFTA).

In sum, while digital payments have unlocked tremendous potential for inclusive finance and climate resilience in Africa, safeguarding these gains demands urgent attention to the vulnerabilities in the information ecosystem that surround them.

The Disinformation Challenge in African Digital Finance

The challenges posed by disinformation in Africa's digital finance ecosystem are not isolated phenomena but rather reflect broader systemic vulnerabilities within public information systems across the continent. Understanding these underlying weaknesses is critical to designing effective interventions that not only protect digital financial services but also promote trust in climate-aligned innovations. Three key systemic weaknesses stand out:

Fragmented Monitoring and Response Mechanisms

Across many African countries, there is a notable presence of independent fact-checking organizations and civil society groups actively working to debunk false information and promote media literacy. Examples include Africa Check, headquartered in South Africa, which operates across multiple countries, and local initiatives such as the PesaCheck project

in Kenya that focuses specifically on financial misinformation. However, despite their presence and expertise, these entities remain largely disconnected from the core actors in digital finance, including central banks, fintech companies, and mobile network operators (Ozili 2018).

This fragmentation leads to a reactive rather than proactive approach to disinformation. For example, during the Nigerian eNaira rollout in 2022, fact-checkers were largely isolated from the Central Bank of Nigeria's (CBN) communication strategy, which resulted in inconsistent messaging and gaps in timely responses to emerging rumors (Ree 2022). Consequently, misleading narratives spread rapidly before official clarifications could be issued. Similarly, fintech firms often lack dedicated communications teams equipped to handle disinformation crises, leaving vulnerable users exposed (Dike 2025).

Efforts to integrate fact-checking entities with financial regulators and private sector actors have been sporadic. In Ghana, a pilot collaboration between the Bank of Ghana and a local fact-checking group during the launch of a digital levy in 2023 showed promise in quickly identifying viral misinformation and disseminating accurate counter-messaging (Ricci et al. 2025). Yet, such initiatives remain the exception rather than the norm.

This lack of coordinated monitoring and response frameworks weakens the ability to detect, analyze, and counter disinformation swiftly and at scale, especially as false narratives evolve rapidly on encrypted platforms like WhatsApp and Telegram. It also leaves fintech ecosystems ill-prepared to build resilient trust networks that could buffer against misinformation shocks.

Limited Climate-Fintech Literacy Among the Public

While mobile money adoption has surged, public understanding of the complex intersections between digital finance and environmental objectives remains underdeveloped. This literacy gap is particularly problematic for climate-related fintech products, which often involve new and abstract concepts such as tokenization, green bonds, and parametric insurance (Carè et al. 2025).

For instance, GSMA's research highlights that while mobile money penetration is high, awareness of climate-linked financial products (like green bonds or climate insurance) remains very low, often below 25% in surveyed regions across sub-Saharan Africa (GSMA 2024). Without sufficient literacy, users are vulnerable to misunderstanding or misinterpreting such products, making them easy targets for disinformation campaigns.

The complexity of these products also poses challenges for regulators and financial educators. Traditional financial literacy programs rarely include content on climate finance or digital tokenization, and few countries have mainstreamed climate-fintech education into their national financial literacy strategies (Loukoianova et al. 2024). This educational gap is amplified by socio-economic factors, including low formal education rates in rural areas, linguistic diversity that complicates standardized messaging, and gender disparities in digital access and education.

A telling example comes from Kenya, where the Kenya Climate Innovation Center (KCIC) and partners have launched workshops to improve understanding of green bonds and PAYG solar finance among rural women entrepreneurs. Despite these efforts, uptake remains slow, in part due to persistent rumors and misinformation—highlighting that education alone is necessary but insufficient without simultaneous efforts to counter false narratives.

Cross-Border Spillover of Disinformation

Disinformation rarely respects national borders, and Africa’s interconnected linguistic, trade, and social corridors facilitate the rapid regional spread of false narratives (Derome 2024). This phenomenon poses acute challenges for digital financial systems that rely on trust and interoperability across countries, particularly under the African Continental Free Trade Area (AfCFTA) framework (Hassan 2022).

For example, a false narrative that began in Nigeria in 2022 — claiming the eNaira would lead to arbitrary government seizure of funds — quickly found traction in neighboring West African countries such as Ghana and Senegal, despite the absence of similar digital currencies in those markets. The spread was facilitated by shared languages (English, French), diaspora networks, and common use of platforms like WhatsApp and Facebook.

Similarly, in East Africa, misinformation about mobile green bonds initially targeted in Kenya circulated widely in Uganda and Tanzania, undermining nascent environmental finance projects there (Kiburi 2023). Local radio stations and online influencers played a role in amplifying these narratives, reflecting the porous nature of information flows in the region.

This cross-border spillover has significant implications for regional economic integration and climate cooperation. AfCFTA aims to boost intra-African trade through harmonized policies, including digital payments and fintech services that reduce transaction costs and increase financial inclusion (Warikandwa 2023). However, disinformation that undermines trust in payment systems or green finance in one country can cascade across borders, disrupting market confidence and complicating harmonization efforts.

Moreover, the lack of coordinated cross-border mechanisms to monitor, share intelligence on, and respond to disinformation weakens regional resilience. Unlike financial regulation, which is increasingly coordinated through regional bodies like the East African Community (EAC) and the West African Economic and Monetary Union (WAEMU), information governance remains fragmented, making it difficult to deploy unified countermeasures against transnational disinformation campaigns (Okechukwu Effoduh 2025).

Implications for the AfCFTA and Regional Financial Integration

These systemic weaknesses — fragmented response mechanisms, low climate-fintech literacy, and cross-border spillover — are particularly damaging in the context of the African Continental Free Trade Area (AfCFTA) and broader efforts to foster regional financial integration (Sangwa et al. 2025). Trust in cross-border digital payment systems is fundamental to the AfCFTA’s success, which seeks to create a seamless continental market for goods, services, and capital.

If consumers and businesses harbor doubts about the security, transparency, or environmental integrity of digital payment platforms, adoption rates will stagnate, and the economic potential of integrated digital finance ecosystems will remain unrealized. Furthermore, climate finance initiatives that depend on broad-based participation could falter if misinformation dissuades stakeholders from investing or engaging. Box 2 below outline just a few quantitative examples of the negative influence that disinformation has on the development of digital payment systems, especially in relation to sustainable development.

- **Very low early uptake of a high-profile CBDC rollout.** Nigeria's eNaira had *fewer than 1.15 million users (~0.5% of the population)* by October 2022 — a figure commentators attribute in part to public hesitancy and reputational concerns (rumours about surveillance/seizure). This contrasts with the much larger reach of incumbent mobile money channels (Lawal 2023).
- **Users prefer established mobile money to CBDCs.** IMF analysis of CBDCs notes that in markets like Nigeria many users continued to prefer mobile-money solutions over CBDCs despite legal-tender status, reflecting the inertia that reputational shocks and trust deficits can exploit (Koonpraset 2024).
- **Trust in institutions across Africa is weakening.** Afrobarometer's recent rounds show declining trust in public institutions across surveyed countries (2021–2023), creating a fragile climate in which disinformation can more easily undermine new financial instruments (Abada 2024).
- **Africa already carries the lion's share of global mobile-money value.** Sub-Saharan Africa accounted for roughly *70% of global mobile-money transaction value* in recent GSMA reporting — meaning even modest percent-level trust shocks can translate into large absolute economic impacts (IMF 2023).

To preserve and enhance trust, it is essential to address these systemic information weaknesses alongside technical and regulatory reforms. This entails fostering integrated monitoring networks, scaling up targeted climate-fintech education, and establishing cross-border collaboration platforms to detect and counter misinformation promptly and coherently.

Policy Recommendations

1. Establish Regional Information Resilience Hubs

Create multi-stakeholder centers — hosted in partnership with the African Union — to monitor, fact-check, and rapidly respond to disinformation targeting digital finance and climate initiatives. These hubs should integrate central banks, telecom regulators, fintech associations, and civil society fact-checkers, ensuring coordinated messaging across platforms and borders.

2. Integrate Climate-Fintech Literacy into National Financial Education Strategies

Develop national campaigns explaining the benefits, risks, and safeguards of digital payment systems, tokenized green bonds, and climate-linked insurance. Messaging should be tailored for underserved communities, using local languages and trusted intermediaries such as farmers' cooperatives and trade associations.

3. Enhance Cross-Border Regulatory Cooperation

Through regional economic communities, harmonize content moderation standards, develop early warning systems for cross-border disinformation, and facilitate policy coordination between central banks, competition authorities, and digital platforms.

4. Leverage Public-Private Partnerships for Platform Accountability

Encourage social media companies, telecom operators, and fintech providers to co-develop tools that detect and limit the reach of harmful financial disinformation. This could include algorithmic downranking of demonstrably false claims about CBDCs and green finance.

Conclusion

Digital payments are a cornerstone of Africa's inclusive growth and climate resilience strategies. Yet without robust safeguards against disinformation, the trust required to scale these innovations will remain fragile. By embedding information integrity into financial governance, investing in literacy, and fostering cross-border collaboration, African policymakers can protect digital financial ecosystems while advancing the Sustainable Development Goals. The challenge is urgent — but so is the opportunity to lead globally in building trust at the nexus of finance, technology, and sustainability.

Author Biography

Andrew Heffernan is a part-time professor of international relations and comparative politics at the University of Ottawa, where he also completed a Ph.D. in political science. He is a former post-doctoral fellow at the Digital Policy Hub whose research examined climate governance and mis- and disinformation around climate change. Other major research interests include African politics, global environmental governance, climate change mis- and disinformation, community-based conservation, and the politics of food. Andrew is also active in the scholarship of teaching and learning, about which he is regularly publishing on and presenting at academic conferences, as well as implementing in his teaching in university classes.

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