AFRICOIN

Powering on-chain markets in Africa

WHITE PAPER

(2026)

Introduction

Africoin is a platform for the tokenization of Real-World Assets (RWAs) across Africa. The platform converts physical, productive assets into programmable on-chain tokens that are accessible to both local participants and global investors. These assets span precious metals, agricultural commodities, and natural resources.

Africa sits at the intersection of three of the most powerful forces reshaping the global economy: a commodities supercycle, a demographic surge that will define the workforce of the 21st century, and a digital momentum in which artificial intelligence and virtual asset infrastructure is already transforming how legacy systems operate. Despite these tailwinds, the continent's most productive assets remain structurally inaccessible. They are held in paper registries, locked in illiquid private structures, and mostly invisible to international capital markets.

Africoin exists to change this. Africoin's goal is to apply the best RWA tokenization principles to Africa's vast and underserved asset base, creating a new class of investable, auditable, and globally tradeable digital assets anchored to African real-world value. This market is extremely vast and has immense potential. We expose the strength of Africa's RWAs market in the table below:

$6.2T	$2-16T	30%
Africa's estimated natural resource wealth[1]	Projected global RWA market by 2030[2-3]	World's mineral reserves held in Africa[4]

Problem Statement

Africa's productive asset base spans minerals, metals, agricultural land, commodities, and infrastructure. It is the largest concentration of under-monetized real-world wealth on earth. Yet this wealth does not circulate in global capital markets, it does not collateralize lending, and it does not generate investment returns for those who own or produce it.

[1] African Development Bank Group
[2] McKinsey & Company
[3] Boston Consulting Group
[4] UN Environmental Programme

The reasons are structural and reinforcing:

- **Illiquidity:** Physical assets like gold or land cannot be subdivided and/or traded without a cumbersome logistical process. In fact, there seems to be no liquid secondary market for African real-world assets to allow for this type of trade.
- **Opacity and provenance gaps:** Ownership chains are paper-based or unregistered. Information about origin, custody, and quality grade is fragmented across disconnected registries or simply absent, making due diligence prohibitively expensive for international investors.
- **Jurisdictional fragmentation:** An international investor faces 54 separate legal systems, currencies, and regulatory regimes. Cross-border capital flows carry enormous friction costs and legal uncertainty.
- **Financing exclusion:** Many commercial banks in Africa allocate less than 4% of total lending to the agricultural sector despite agriculture contributing roughly 20% of regional GDP. Smallholder farmers and artisanal producers are the primary agents of production, yet they have no access to formal credit against their assets.
- **Value extraction:** Producers capture a fraction of the downstream value of what they grow or extract. Many farmers in West Africa's cocoa belt receive less than 6% of the final retail value of a chocolate bar. The asymmetry between resource ownership and economic reward is structural and persistent.

In the broader Web3 context, the RWA tokenization space has grown rapidly but remains concentrated in developed market assets: US Treasury bills, money market funds, and real estate in North America and Europe. Existing platforms lack the on-the-ground infrastructure, legal architecture, and asset-class breadth to address African real-world assets credibly. There is no unified, compliant marketplace for African commodity-linked or land-linked digital assets. Africoin addresses this gap directly.

The Core Problem

Africa holds some of the world's most valuable real assets. They are inaccessible to global capital, uncollateralized for local borrowers, and opaque to markets. Tokenization is the mechanism that changes all three of these facts simultaneously.

Business Model

Africoin operates as a tokenization platform and compliant digital marketplace for RWAs in Africa. The platform connects different participant groups: **issuers** (entities that tokenize the RWAs), **investors** (institutional and/or retail participants who wish to have exposure to tokenised RWAs), and the **regulator(s)** (e.g., Securities and Exchange Commission).

Asset Classes

The platform supports tokenization across four primary asset categories, with the architecture designed to expand as new asset classes mature:

- **Precious metals and minerals:** Physical gold, silver, platinum, and other mineral outputs held in certified custody are tokenized as fungible commodity tokens. Each token represents a defined weight unit of certified metal, redeemable against the physical stockpile.
- **Agricultural commodities:** Harvest batches of cocoa, coffee, cashew, rubber, and other produce are tokenized as digital warehouse receipts upon verified delivery. Each commodity token carries embedded provenance data covering GPS origin, grade certification, and chain of custody, and can serve as collateral for working capital financing.
- **Land and natural resource rights:** Legally documented land parcels and natural resource concessions are tokenized as non-fungible digital titles, providing a portable, immutable record of ownership that can underpin lending, leasing, or direct investment.
- **Infrastructure and productive assets:** Processing facilities, storage infrastructure, and productive equipment can be tokenized to enable fractional ownership and access to project finance from a broader investor pool.

How It Works

The tokenization flow is standardized across asset classes:

- **Asset verification:** The physical asset is verified by an accredited third party. For metals this means a certified assayer, for commodities a licensed warehouse operator, and for land a qualified surveyor. Verification data is recorded off-chain and the summary proof is anchored on-chain.
- **Token issuance:** A dedicated token contract is deployed for the asset. Token supply is fixed to the verified asset quantity. Metadata covering provenance, certification, and custody details is stored on IPFS with the content identifier anchored on-chain for immutability.
- **Trading and settlement:** Tokens trade on the blockchain and, in the future, on Africoin's permissioned marketplace. Revenue distribution to originators is programmable and executed automatically.
- **Redemption:** Token holders may redeem physical assets against the custodian upon token surrender and identity verification, closing the loop between digital and physical ownership.

Revenue Model

Africoin generates revenue across the full lifecycle of tokenized assets, ensuring alignment between platform growth and the value it creates for participants:

Issuance Fees

A fee is charged on the initial tokenization of each asset. This covers the tokenisation process. The fee is structured as a percentage of the total tokenized asset value, with tiered pricing for large-volume issuers.

Secondary Trading Fees

In subsequent stages, the platform will charge a transaction fee on every secondary market transfer of tokenized assets. As liquidity deepens and trading volume grows, secondary trading fees become the primary revenue driver. The fee structure is kept competitive with traditional brokerage and exchange rates to encourage volume.

Custody and Administration Fees

For assets held in Africoin-affiliated custody arrangements, an ongoing administration fee applies. This covers the cost of maintaining the link between the physical asset and its on-chain representation, including periodic re-verification, custody reporting, and registry maintenance.

Technical Architecture

The platform's technical architecture is designed around one principle: the integrity of the link between the physical asset and its digital representation must be unbreakable. Every layer of the stack serves this goal.

Blockchain Infrastructure

Africoin deploys on EVM-compatible blockchain infrastructure for its deep developer ecosystem, institutional familiarity, and access to DeFi liquidity networks. Concretely, the assets are deployed on Ethereum Layer-1 (L1). The architecture includes a modular separation of data, consensus, and application layers that ensures the platform can bridge to other decentralized networks as requirements potentially evolve.

Tokenisation Engine

Africoin features an easy to use tokenisation studio (or tokenisation engine) where users can quickly obtain a non-custodial wallet from a simple email sign-on. The tokenization studio enables issuers to deploy asset-specific token contracts with configurable parameters: supply caps tied to verified asset quantities, transfer restrictions. In the future, these deployments will feature the ability to include custom programmable logic from the start. Provenance metadata is stored on IPFS with content identifiers anchored on-chain, ensuring the record of what backs each token cannot be altered. This is to ensure the commitment to transparency, verifiability, and integrity in the platform.

Assets that are submitted via the tokenisation studio go through an initial AI analysis to ensure that the uploaded documentation is correct (and enough). Subsequently, the regulating entity has access to an admin dashboard that allows them to approve/reject/edit tokenisation requests submitted on the platform.

(Physical) Custody Provider

Each asset issued on the platform enforces its own set of rules (approved by the regulator). We note, however, that it is often the case that the physical custody of the asset will fall under the responsibility of a (prestigious) physical custody provider. This high-level of service exists to ensure that the asset is securely stored by a regulated entity while allowing for 24/7 trading and fractional ownership.

(Digital) Custody Provider

Africoin features its own native wallet. A non-custodial wallet that is based on Multi-Party Computation (MPC) principles. Concretely, the private keys are never stored whole on any single device or server. Instead, the private key of each user is derived from email-based authentication and split across multiple servers. This key is reconstructed on the user's device only at the moment of transaction signing. As a result, users do not manage seed phrases and a loss of a device does not mean loss of assets. In effect, users can recover wallet access from a new device by re-authenticating through the same identity verification flow used at onboarding. This eliminates the most common cause of asset loss in self-custodied blockchain wallets. We note, however, that we rely on well-established token standards and, as a result, users are also free to choose their preferred mechanism of self-custody of the digital assets.

Compliance Layer

The contracts deployed from the tokenisation studio natively include the ability for the regulator to have direct involvement over the issued assets. These include, for example, asset freezes and transfer restriction updates. Every governance action is recorded on-chain, creating a permanent and publicly auditable trail. Regulatory nodes provide authorized supervisory bodies with read-only access for continuous, automated oversight.

Trading Layer

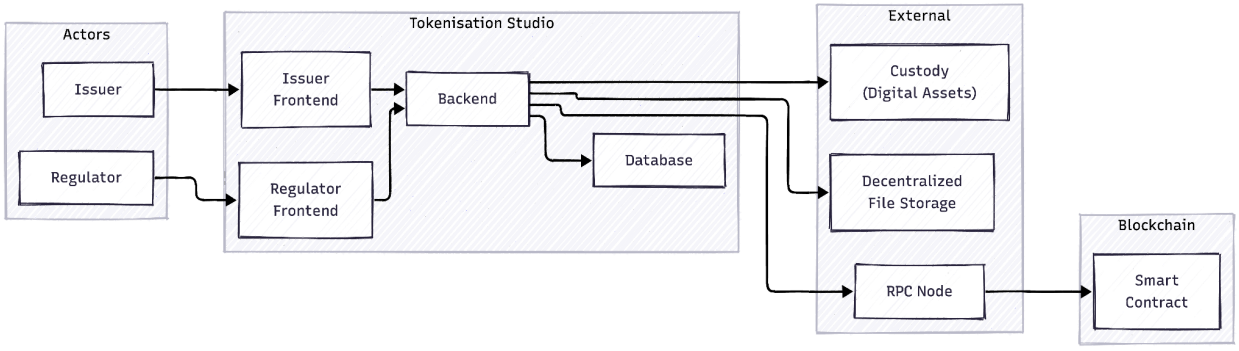
Since Africoin relies on existing well-established token standards, the tokens can move to secondary markets upon regulatory approval from the tokenisation studio and initiate trading. As the project evolves, Africoin intends to become an official marketplace for Africa's (regulated) tokenized RWAs. Concretely, upon issuance on the tokenisation studio, the newly created tokens can automatically be listed on the Africoin marketplace and readily available for investors to start trading.

Architecture Diagram

This architecture clearly separates responsibilities within the **Tokenisation Studio**, distinguishing between issuer-facing and regulator-facing interfaces while centralizing all control in the **Backend**. Both frontends act strictly as interaction layers, tailored to their respective roles, but neither has direct access to persistence or external systems. Instead, all actions are funneled through the Backend, which serves as the orchestration layer—handling authentication, enforcing permissions, and coordinating workflows. This ensures that both issuer and regulator operations are processed through a single, controlled execution path, enabling consistency, auditability, and policy enforcement.

The **Database** is modeled as a dedicated persistence layer, acting as the system of record for application state and operational history. By restricting access to the Database exclusively through the Backend, the architecture enforces a strong boundary between execution and storage. This is particularly important in regulated environments, where traceability and controlled data access are critical. The Backend effectively becomes the gatekeeper, ensuring that all reads and writes comply with system rules and any applicable governance constraints.

Externally, the Backend integrates with specialized services that extend the system's capabilities. **Digital custody** enables management of off-chain assets, forming the bridge between traditional asset infrastructure and on-chain representations. **Decentralized file storage** is used for immutable or large artifacts, keeping the core system lightweight while preserving verifiability through references. Finally, interaction with the blockchain is mediated via an **RPC node**, with the **Smart Contract** acting as the authoritative settlement layer. All on-chain operations originate from the Backend, ensuring that state transitions are validated and aligned with both business logic and regulatory requirements before execution.



Roadmap

Africoin adopts a phased implementation strategy designed to progressively establish (i) trusted issuance infrastructure, (ii) regulated asset supply, (iii) liquid secondary markets, and (iv) advanced financial primitives built on tokenized real-world assets (RWAs). Each phase builds on the primitives introduced in prior stages, ensuring that scalability does not compromise compliance, transparency, or asset integrity.

Phase I — Tokenisation Infrastructure

In this phase, Africoin deploys its core Tokenisation Studio, enabling issuers to create asset-backed tokens through a standardized and verifiable process. The system integrates AI-assisted document validation to pre-screen submitted asset documentation, ensuring completeness and consistency prior to regulatory review.

Smart contracts generated through the Tokenisation Studio incorporate configurable parameters, including supply constraints tied to verified asset quantities, transfer restrictions, and role-based permissions. Provenance data associated with each asset is stored off-chain via IPFS, with content identifiers anchored on-chain to guarantee immutability and auditability.

A dedicated compliance layer is introduced, providing regulators with direct oversight capabilities. Regulatory authorities are equipped with administrative interfaces to approve, reject, or modify tokenisation requests. On-chain enforcement mechanisms (e.g., asset freezes, transfer rule updates) are embedded at the contract level, ensuring that compliance is programmatically enforced.

Custody integration is formalized through partnerships with regulated physical custody providers, responsible for safeguarding the underlying assets and issuing attestations. In parallel, Africoin deploys its native non-custodial MPC wallet, enabling users to securely manage digital assets without reliance on seed phrases, while maintaining self-custody guarantees.

The outcome of this phase is for Africoin to create a production-ready, regulator-integrated tokenisation engine with verifiable asset backing and enforceable compliance.

Phase II — Regulated Expansion and Asset Onboarding

Upon completion of the first phase, the goal is to scale the platform across jurisdictions and asset classes.

Building on the foundational infrastructure, Africoin expands its regulatory footprint by onboarding multiple supervisory authorities across different jurisdictions. Compliance modules are adapted to reflect jurisdiction-specific requirements, enabling geographically scoped issuance and transfer policies.

The platform simultaneously expands its network of asset issuers, including commodity producers, infrastructure operators, and institutional asset holders. Standardized onboarding procedures and custody integration frameworks are introduced to ensure consistency across asset types.

The range of supported assets is extended to include, but is not limited to, precious metals, carbon credits, agricultural assets, and infrastructure-linked instruments. The AI validation engine is further enhanced to incorporate risk scoring and anomaly detection, improving the robustness of the asset verification pipeline.

Custody providers are integrated through standardized interfaces, enabling periodic attestations and verifiable proof-of-reserve mechanisms to be anchored within the system.

The outcome of this phase is for the production of a multi-jurisdictional, regulator-backed ecosystem with a growing supply of verified tokenized RWAs.

Phase III — Marketplace and Liquidity Layer

Upon completion of the second phase, the goal is to enable efficient primary issuance and secondary market trading.

In this phase, Africoin introduces its native marketplace, allowing tokenized assets issued through the Tokenisation Studio to be listed and traded upon regulatory approval. Both primary distribution and secondary market activity are supported within a unified framework.

Trading mechanisms are designed to remain compliant by construction. Transfer restrictions defined at the smart contract level are enforced throughout the trading lifecycle, ensuring that transactions adhere to jurisdictional and regulatory constraints. Liquidity formation is supported through a combination of peer-to-peer matching and automated market-making mechanisms adapted to the characteristics of RWAs.

Settlement occurs on-chain, with integrated compliance checks executed at the protocol level. Fiat on- and off-ramps are introduced via external partners to facilitate broader participation. Early-stage liquidity is supported through market-making programs and institutional participation.

User experience is enhanced through wallet-level integrations, enabling portfolio management and seamless interaction with marketplace functionalities.

The outcome of this phase is to enable a regulated liquidity venue enabling continuous trading and price discovery for tokenized RWAs.

Phase IV — DeFi and Financial Instruments

The objective of this phase is to enable capital efficiency and programmable financial services on RWAs.

Africoin plans on extending its infrastructure to support advanced financial primitives built on tokenized assets. These include the use of RWAs as collateral within lending and borrowing frameworks, enabling capital formation without requiring asset liquidation.

Structured financial products are expected to be introduced, such as yield-generating vaults and index-based instruments representing diversified baskets of RWAs. Liquidity infrastructure is further refined through automated market makers tailored to low-volatility assets, incorporating dynamic fee mechanisms and rebalancing strategies.

Over time, the platform may support derivative instruments, including forward and futures contracts on tokenized commodities, enabling risk management and hedging capabilities for market participants.

Interoperability with external blockchain ecosystems is prioritized, ensuring that Africoin-issued assets remain compatible with widely adopted token standards and can participate in broader decentralized finance environments.

The outcome of this phase is to create a composable financial ecosystem where tokenized RWAs serve as the foundation for lending, yield generation, and advanced financial instruments.

Conclusion

The tokenization of real-world assets is no longer a speculative concept. The infrastructure is proven, the institutional appetite is established, and the regulatory frameworks are maturing.

Africa has not missed this moment. The continent holds the world's most under-monetized real-world asset base, spanning minerals, metals, agricultural commodities, land, and infrastructure. The structural barriers that have kept this wealth inaccessible are precisely the barriers that RWA tokenization is designed to remove: illiquidity, opacity, jurisdictional fragmentation, and financing exclusion.

Africoin provides a compliant, robust, and accessible platform to unlock this asset base. The platform delivers immutable provenance, programmable compliance, atomic settlement, and global market access for asset classes that have never had any of these things.

The result is a new class of investable African assets: transparent, auditable, and accessible to global capital. For producers, it means fair and immediate payment. For investors, it means verified exposure to some of the world's most strategically vital commodities. For Africa, it means that the wealth produced on the continent finally begins to circulate at a world scale.

Contact

For partnership enquiries, pilot programme participation, or investor relations, contact the Africoin team at: info@africoin.ai

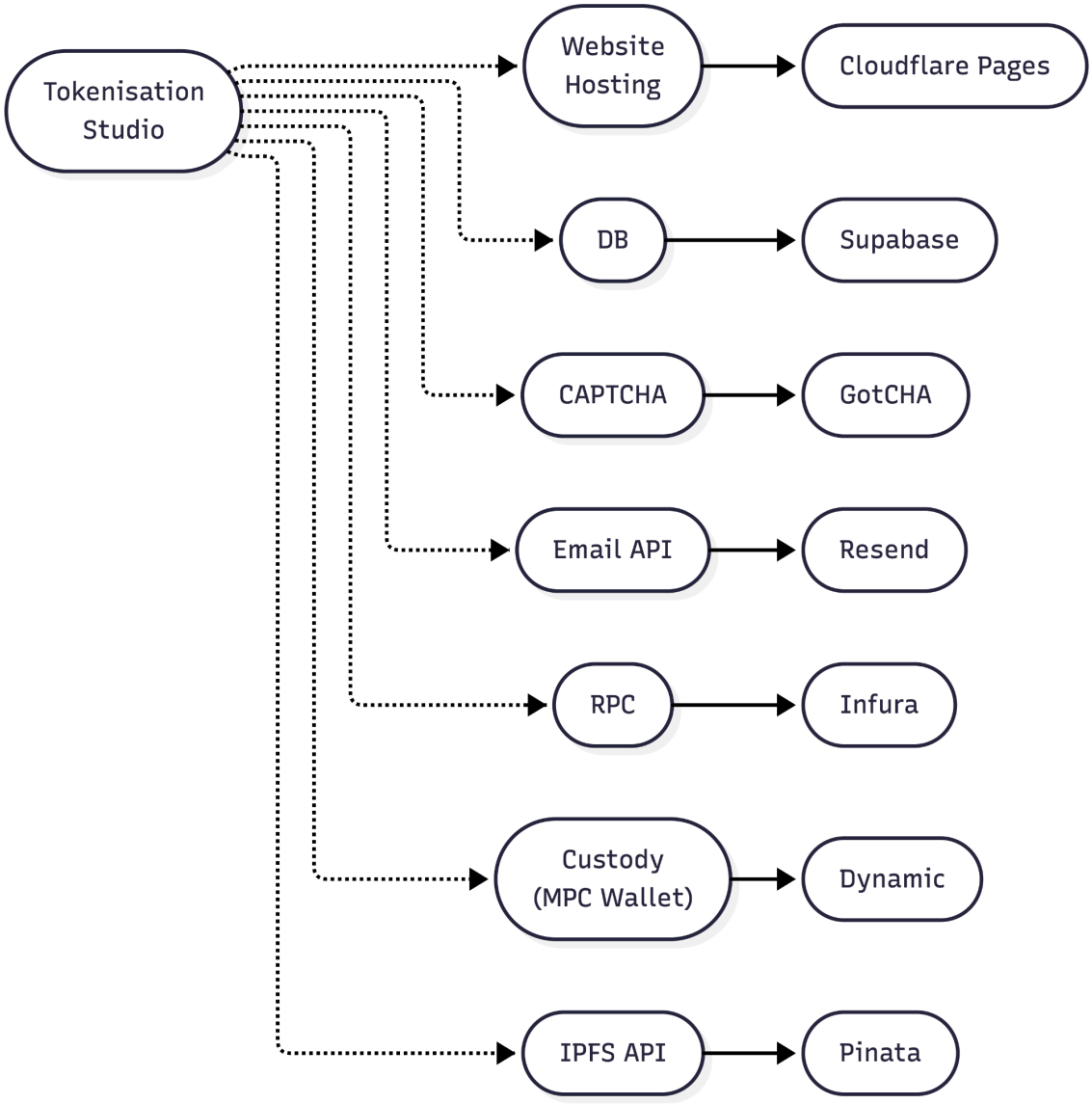
Appendix

Risk Mitigation Framework

Security Procedures

The tokenisation studio natively includes the ability for the issuer to freeze an asset. Therefore, in the event of a malicious hack, the issuer can act quickly upon the situation and address the existing risk. All freeze actions are justified to the regulator on the tokenisation studio. However, in the interest of having the ability to act quickly, the 'freeze' action does not require approval from the regulator and can be performed by the issuer directly.

External Dependencies



Provider Risk Assessment

Service	Provider	Risk	Failure Effect on Platform
Hosting	Cloudflare	Medium	Website can become temporarily inaccessible.
Database	Supabase	Medium	DB with asset records can be lost
CAPTCHA	GotCHA	Low	Form can become temporarily inaccessible.
Email	Resend	Low	Form requests will not be delivered.
RPC	Infura	Medium	Tokenisation requests will stop working.
IPFS API	Pinata	Medium	Issuers will not be able to upload new tokenisation docs
Custody	Dynamic	High	User's funds can be inaccessible / lost.
Blockchain	Ethereum	High	Issuers will be unable to issue new assets

Future Safety Mechanisms

We intend to add redundant service providers to ensure the system can continue to function even when a specific service provider fails.

Wind Down

In the event of a wind down, all of the users' funds remain safe. This is by design and because all of the funds are completely held by the users on their own personal wallets.

Tokenomics & Governance

Africoin does not have its own token and acts purely as a service provider. Governance decisions are made per jurisdiction alongside the respective regulator with oversight over that specific jurisdiction. Only the issuer of the asset and the regulator have (un)freeze access over the contracts that are issued on the network. Africoin will appoint a dedicated person for compliance assurance and close contact with the respective regulator for each jurisdiction. In effect, Africoin acts purely as a service provider and has no control over any keys or specific decisions other than specific regulatory enforcements applied to the tokenisation studio as requested by the regulator.

Consumer Protection

Africoin, as a service provider, does not collect any additional data other than what is published on blockchain. Therefore, there is no risk of additional compromise as the information is already made publicly available in the first place.

With regards to funds, the wallet infrastructure used by Africoin is non-custodial. As a result, the security of the funds depends both on the users and Dynamic (the service provider). We note that Dynamic is a company that is already responsible for managing billions of dollars and provides serious production-grade infrastructure for this specific custody vertical.

A failure of the tokenisation studio will result in a halt of the issuance process. Users will still be able to trade as that will depend on the marketplace (i.e., exchange) infrastructure. Liveness of the exchange will depend on the use of extremely reliable and redundant server infrastructure. The exchange will have a dedicated custody provider to ensure the security of funds and adequate separation of hot and cold storage as per the best practices.