Tanzania

Priority Areas

Country Profile

2023

Blockchain and Digital Transformation in Africa.

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Fintech

Mobile Payments and Digital Wallets

Financial Inclusion: Blockchain-based mobile payment apps have helped unbanked Tanzanians access financial services. For example, mobile payment provider Tigo Pesa teamed with a blockchain business to establish a digital wallet that lets users send and receive money, pay bills, and access other financial services on their phones.

Cross-Border Remittances: Blockchain technology is speeding up and lowering the cost of cross-border transfers. For example. BitPesa, a blockchain-based payment tool, allows Tanzanians living abroad to send money home to Tanzania instantaneously, securely, and cheaper than traditional remittance methods.

Identity Management: uqudo offers Tanzania real-time KYC and AML. Its digital identity verification procedure includes scanning documents, facial recognition, government database validation, AML screening, and biometric authentication. eKYC verifies identities in 10 seconds. Besides, AI document scanning and NFC reading help verify Tanzanian ID cards, passports, and driving licenses.

Financial Literacy and Inclusion

The Tanzanian Blockchain Association (TAB): This organisation provides workshops, seminars, and training on blockchain technology, cryptocurrencies, and financial inclusion. It helps define cryptocurrencies, cryptocurrency laws, and ponzi schemes. The association also encourages people to learn about cryptocurrency, avoid frauds, and report fraud. Thus, it plays an integral part in educating the public on its legitimate uses.

Tanzania Fintech Association (TFTA): TFTA promotes fintech solutions in Tanzania, including blockchain. They work with blockchain-based financial literacy and inclusion fintech initiatives.

Financial Sector Deepening Trust (FSDT): Tanzania's FSDT promotes financial inclusion through market development. While not specialized to blockchain, it is crucial to promoting blockchain-based fintech products and financial literacy research.

Innovation for Poverty Action (IPA) Tanzania: IPA, a research and policy organization, evaluates financial inclusion and literacy solutions. They may study Tanzanian financial literacy and blockchain-based fintech solutions.

Data Security and Privacy: Tanzanian fintech firm NALA has launched a blockchain-based platform to securely handle

	personal financial data, offering users more power and financial literacy.
Credit Scoring and Lending Platforms	**Tigo Pesa:** Tanzania's Tigo Pesa mobile money platform is popular. Its "Tigo Nivushe" service provides emergency credit based on usage and transaction history. **M-Pawa:** Vodacom Tanzania's M-Pawa digital savings and micro-lending platform. It encourages savings yet offers small loans to suitable users based on financial behavior and transaction history.
Digital insurance and Risk Management	**BimaAfya:** Tanzanian smartphone app BimaAfya provides health insurance. It's not blockchain-based, but it lets consumers buy insurance, manage plans, and file claims online. **Vodacom Insurance:** Vodacom Tanzania has an insurance app. Though not blockchain-based, it enables customers buy and manage life and gadget insurance on their phones.
Blockchain and Cryptocurrency Adoption	The Bank of Tanzania (BOT) is researching central bank digital currencies (CBDCs). They developed a technical team, held stakeholder forums, and consulted with international organizations and commercial enterprises. The research considers CBDC type, issuance and management models, and instrument design to establish the best CBDC adoption strategy for Tanzania[1]. The BOT is cautiously following global events to maintain financial stability. Many countries are adopting CBDC, however some are having trouble implementing it. Therefore, BOT will explore and collaborate with stakeholders and share its objectives, possibly including a CBDC implementation roadmap.

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[1] Bank of Tanzania, "Bank of Tanzania Progress on Central Bank Digital Currency," 2023.

DeFi

Regulatory Frameworks and Compliance	**Bank of Tanzania (BOT) Act**: Only the BOT can issue banknotes, coins, and legal money in Tanzania. Cryptocurrencies are prohibited. The BOT Act is likely to hinder DeFi development in Tanzania because DeFi protocols use cryptocurrencies. However, DeFi services and other cryptocurrency-related operations are forbidden under the law[2]. **2015 NPS Act:** The BOT oversees payment systems and electronic money, but not cryptocurrencies. However, the bank is investigating digital currency regulation. The NPS Act doesn't apply to DeFi, but future rules from the bank's digital currency probe will likely affect DeFi activities[3]. **Foreign Exchange Act:** Tanzanian residents and non-residents can open and trade foreign currencies under specified restrictions. Residents cannot open accounts outside Tanzania without clearance, and currency trading outside the interbank foreign exchange market is restricted. DeFi is transnational and borderless, making these prohibitions difficult to enforce. However, legal and financial consequences may deter Tanzanians from participating in DeFi activities[4].
Financial Inclusion and Digital Banking Solutions	Due to strong financial industry growth, digital financial apps are becoming more popular. Many banks, mobile network operators (MNOs), and fintech companies offer mobile apps. These apps allow real-time account checking, transfers, payments, investments, savings, and foreign exchange rate tracking. Most apps support English and Swahili. Some apps need pre-account setup, while others allow in-app account creation. Some apps are iOS-compatible, while most are Android-only. Many apps can scan QR codes for mVisa or Masterpass payments. Apps from NMB Bank, CRDB Bank, Barclays Tanzania, Standard Chartered Bank Tanzania, and others are included. However, these Tanzanian consumer financial apps are centralized.

[2] Bank of Tanzania, "Public Notice On Cryptocurrencies," 2019.
[3] Bank of Tanzania, "Bank of Tanzania," www.bot.go.tz, 2015.
[4] Bank of Tanzania, "THE FOREIGN EXCHANGE ACT (CAP. 271)," www.bot.go.tz, 2022.

Decentralized Cross-Border Payments and Remittance Platforms	If laws and regulations improve, Decentralized Finance (DeFi) will change financial inclusion in Tanzania. P2P lending services will allow anyone with a digital wallet to borrow and lend without intermediaries. DeFi will also enable low-interest microloan platforms for people and small enterprises. Besides, blockchain-based credit scoring will provide a complete perspective of creditworthiness, increasing financial access. If digital assets are legalized, collateralized DeFi lending will likely allow users to secure loans with them. Aside from that, DeFi platforms integrated with mobile money services will improve user experience in Tanzania, where mobile money is prevalent. In conclusion, Tanzania's regulatory environment could promote financial inclusion and credit access via DeFi and blockchain technologies.
Cross-Border Payments and Remittance Platforms	Over one billion individuals and USD 600 billion in remittances require cheap financial solutions[5]. In the second quarter of 2022, Tanzania to Kenya corridor remittance expenses averaged 35.21%[6]. International transfers take longer. Remittances are predicted to expand enormously, yet security and transparency remain issues. Some start-ups have adopted a model where the sender converts their currency into Bitcoin and uses Bitcoin-based remittance providers to deliver funds to the recipient through international and local partnerships. Payment process standardization and interoperability boost competition and lower costs. The SADC region's System for Real-Time Electronic Settlements (SIRESS) includes non-bank providers in settlement infrastructure, which benefits service providers. Banks and regulators can set secure messaging and payment requirements. Due to looser laws and promotion of digital remittance services, cross-border migration within corridors like Tanzania-Kenya has expanded.
Decentralized Insurance and Risk Management Products	DeFi insurance is likely to improve yield farming in Tanzania by minimizing smart contract failures and protocol failures. It will help protect farmers' staked investments, boosting yield agricultural confidence and participation. Thus, DeFi insurance will potentially attract risk-averse Tanzanians to the DeFi ecosystem. This insurance model will automate risk management for yield farming platforms like Yearn Finance. Implementation will require regulatory permission, technical infrastructure, and public education regarding cryptocurrency, DeFi, and digital insurance.

[5] Kevin Coutinho, NeerajKumari Khairwal, and Pornpit Wongthongtham, "Towards a Truly Decentralized Blockchain Framework for Remittance," *Journal of Risk and Financial Management* 16, no. 4 (April 1, 2023): 240, .
[6] The World Bank. "Sending Money from Tanzania to Kenya - Remittance Prices Worldwide." remittanceprices.worldbank.org, 2022. https://remittanceprices.worldbank.org/corridor/Tanzania/Kenya.

Cryptocurrency

Regulatory Clarity and Oversight	Tanzania's cryptocurrency regulation is unclear and hinders growth. The Bank of Tanzania Act outlaws cryptocurrencies, but the National Payments System Act does not regulate them, causing legal uncertainty. Cryptocurrency users, businesses, and investors are likely to fear legal ramifications without clear advice. This uncertainty creates problems regarding how to treat cryptocurrency under the Foreign Exchange Act. Fraud, market manipulation, and security breaches can occur without adequate oversight. Regulatory clarity and oversight would safeguard consumers and investors and enable crypto industry innovation and growth, potentially enabling financial inclusion, digital economy expansion, and technological advancement. Hence, Tanzania needs a clear regulatory framework to capitalize on the global cryptocurrency boom.
Infrastructure Development	**MAST and TRUST:** Digitalization has helped Tanzania improve land registers. The government has created Mobile Applications for Secure Tenure (MAST) and Technical Register for Social Tenure (TRUST) with USAID. MAST, an open-source smartphone app, enables users map land boundaries and gather relevant data to issue official land titles. Neighbors can verify data through the smartphone app. The local land office issues a Certificate of Customary Right of Occupancy after verifying data in a cloud database. In rural Tanzania, MAST teaches property rights through local ambassadors. The government launched TRUST to digitize land registration records after MAST's success. This program empowers citizens and institutions by facilitating land ownership rights and information[7].
	PharmAccess and Aid:Tech: Blockchain technology isn't new in Tanzania's healthcare sector. Dutch company PharmAccess and Aid:Tech piloted a blockchain project to improve maternal healthcare and meet the Millennium Development Goal. Chain of Trust, inaugurated in April 2018, provides complete prenatal and postnatal care for women. The system assigns expectant mothers a digital identity that tracks hospital visits and essential information before, during, and after childbirth. Chain of Trust improves healthcare safety and efficacy by gathering, identifying, and verifying digital health data. The first blockchain-recorded birth occurred in June 2018, demonstrating the government's backing for such advancements in underdeveloped nations'

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[7] USAID, "Mobile Applications to Secure Tenure (MAST) Implementation Guide LAND TECHNOLOGY SOLUTIONS," 2017, .

healthcare systems[8]. This project illustrates blockchain's potential in Tanzania's healthcare sector.

Innovation And Technology 2022 Summit: At the Dar es Salaam innovation and technology 2022 summit, Tanzania's ICT stakeholders stressed the need for favorable legislation and regulations to protect cybersecurity, digital currencies, and data. Infrastructure development is crucial to improving connection, especially in rural regions, and closing the digital skills gap[9]. Startup finance and research required private-public collaboration. Digital solutions for the public were encouraged to improve people's lives and minimize digital inequities. Tanzania invested $150 million in innovation in 2021/22. To combat cybercrime and promote confidence, the digital realm needs bitcoin and blockchain understanding and data protection legislation. The government is expanding the National Information and Communications Technology Broadband Backbone (NICTBB) to improve internet connectivity in rural areas and create a safe digital environment. The ministry plans to build 150 new telecommunication towers that will provide internet connectivity at 3G speed. It aims to upgrade 350 existing towers, enabling them to support 3G and 4G connections instead of just 2G. Funding research and improving the innovation ecosystem are priorities. Tanzania's United Nations Development Programme (UNDP) representative praised digital transformation discussions.

Talent Development and Innovation

Partnership Between Belfrics Group and DIT to Develop Blockchain Talent in Tanzania:

Belfrics Group and Dar Es Salaam Institute of Technology (DIT) are working together to meet the growing demand for blockchain specialists. Belfrics Academy, Belfrics Group's research and training division, will spearhead the drive to close the knowledge gap and satisfy the industry's blockchain talent needs. Blockchain is a disruptive technology, and DIT wants to build capacity in it. As a result, Tanzanian talent will be nurtured through specialized training, innovation centres, and blockchain jobs. African youth's digital skills and economic development are the goals of this strategic cooperation.

Adanian Labs: Fostering Tech Startups in Tanzania with AI, Blockchain, and Smart Technologies

Adanian Labs is a venture studio situated in Dar es Salaam, Tanzania, that specializes in AI, blockchain, and smart technologies. Their core focus is on launching, growing, and scaling tech firms in these industries. The company

[8] Pharm Access, "PharmAccess Partners with Aid:Tech to Transform Antenatal Care in Tanzania through Blockchain Technology," PharmAccess, 2018, .
[9] DAI, "Tanzania—ICT Partnership: 5G/6G Frameworks and Cyber Security Capacity · DAI: International Development," www.dai.com, 2022,

frequently organizes hackathons to encourage innovation and provide participants with opportunities for skill enhancement. Notably, on World Backup Day, they also emphasized the necessity of data backup and advocate the usage of electronic health records to improve patient care in the healthcare industry. During the Blockchain Africa conference in Johannesburg, our Co-Founder and CGO, Irene Kiwia, emphasized ABCAfrica's efforts to increase blockchain capabilities in Africa. Irene highlighted the impact of ABCAfrica's work, emphasizing the necessity of talent development in harnessing the full potential of the Fourth Industrial Revolution. This event was sponsored by Samsung Mobile Tanzania and Adanian Labs and powered by the latest Galaxy S23 Series.

ABDCS Organizes Bootcamp and Hackathon to Foster Blockchain Expertise in Tanzanian Universities

On October 31, 2022, the Africa Blockchain Developer's Call Series Initiative (ABDCS) hosted a bootcamp for Tanzanian university undergraduates. The program aimed to solve the shortage of qualified African blockchain developers, which leads to outsourcing. ABDCS trains and certifies 5,000 blockchain experts and 1,000 developers and builds a community of over 70,000 active participants. In conjunction with Africa BIoT Labs, Sankore 2.0, and ICORBP, the bootcamp provided training, coaching, and a hackathon to expand blockchain competence and employment in Tanzania.

BAA Partners with Afriplains Digital and Blockchain Worx for Blockchain Advancement in Africa

Afriplains Digital, Tanzania, and Blockchain Worx, Singapore, partnered with the Blockchain Association of Africa (BAA) to promote blockchain education and technologies in Africa. The collaboration aims to promote blockchain technology adoption across the continent through technology evangelizing, community outreach, and capacity building. The partnership will begin with Blockchain Worx's Blockchain Innovation Centre in South Africa, Uganda, Rwanda, and Tanzania, providing institutions with the tools and experience to investigate and develop blockchain solutions for African businesses and society.

The Blockchain Web 3 R&D Lab: It has been launched in collaboration with Crypsense Digital Group and The Africa Blockchain Center. Through blockchain education, research, and development aid, this effort intends to assist African governments, enterprises, and organizations in their transition to Web 3. The lab will provide training programs, create tokenized businesses, and promote sector-specific

blockchain adoption in industries such as health care, finance, and agriculture. Through the African Women of Web 3 (AWoW3) program, it will also focus gender inclusion and empower poor women. The Future of Fintech Masterclass, concentrating on Pan-African payment and settlement systems, will be the lab's inaugural event.

Africa Blockchain Center First Cohort of 105 Developers: The Africa Blockchain Center graduated its first 105 blockchain developers. Global specialists led the six-month training program, which focused on Cardano, Algorand, and Ethereum. Graduates from Kenya, Nigeria, Tanzania, Zambia, South Africa, and Benin learned about decentralization, asset tokenization, cryptography, smart contracts, and blockchain-based system development. To accelerate Africa's adoption of the fourth industrial revolution technology, the Africa Blockchain Center will teach and incubate blockchain firms.

Partnerships and Collaborations	**Dutch company PharmAccess and Aid:Tech:** These firms worked on Chain of Trust, a blockchain project to improve maternal healthcare in Tanzania. Women received entire prenatal and postnatal care using blockchain technology, ensuring safety and efficacy. **The United States Agency for International Development (USAID):** The Tanzanian government has collaborated with USAID on programs including MAST and TRUST. These blockchain initiatives improve land registration and secure property ownership rights. **Tanzania Blockchain Association:** The Tanzania Blockchain Association promotes blockchain use across sectors. The organisation educates stakeholders, encourages collaboration, and promotes Tanzanian blockchain rules. **Innovation and Technology Summit:** Tanzania's ICT players stressed public-private collaboration at the Dar es Salaam summit. These partnerships aim to boost digital transformation, cybersecurity, and blockchain usage.

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