



# AMOLE

## An Introduction to Amole

White Paper • From [BTI](#)

**Amole mission is to enable a digital sovereign fiat backed currency, along with financial infrastructure that Empowers Millions of People.**

This document outlines our plans for a digital token backed by fiat currency aim to create a new opportunity for responsible financial services innovation.

**Abstract.** A digital token backed by fiat currency provides individuals and organizations with a robust method of exchanging value while using a familiar accounting unit. Asset backed token can take advantage of blockchain technology, an auditable cryptographically secured global ledger, along with embedded consensus systems to transact in familiar currencies. In order to maintain accountability and ensure stability in exchange price, we propose a method to maintain a one-to-one reserve ratio between a digital token Amole, and its associated real-world asset Ethiopia currency Birr. This method uses the Bitcoin liquid sidechain, Proof of Reserves, and other audit methods to prove that issued tokens are always fully backed by reserve.

### Core Beliefs

As we embark on this journey, we think it is important to share our beliefs to align the community and ecosystem we intend to spark around this initiative:

- We believe that many more people should have access to financial services.
- We believe that people have an inherent right to control the fruit of their legal labor.
- We believe that open, instant, and low-cost movement of money will create immense economic opportunity.
- We believe that people will increasingly moving toward decentralized forms of governance.
- We believe that a global currency and financial infrastructure should be designed and governed as a public good.
- We believe that we all have a responsibility to help advance financial inclusion, support ethical actors, and continuously uphold the integrity of the ecosystem.



## Statement

The advent of the internet and mobile broadband has empowered billions of people globally to have access to the world's knowledge and information, and a wide range of lower-cost, more convenient services. These services are now accessible using a \$40 smartphone from almost anywhere in the world. This connectivity has driven economic empowerment by enabling more people to access the financial ecosystem.

Technology companies and financial institutions have also found solutions to help increase economic empowerment around the world. Despite this progress, large number of the world's population are still left behind 2 billion adults globally remain outside of the financial system with no access to a traditional bank, even though one billion have a mobile phone and nearly half a billion have internet access.

For too many, parts of the financial system look like telecommunication networks will play a major role in the coming years. Country's broadband market also set to develop further following substantial increases in international bandwidth, improvements in national fiber infrastructure and the growing availability of mobile broadband services.

Ethiopia with a population over 110 million and a median age of under 18.8 years, offers significant opportunities for development. Although now most with a smartphone can communicate across the world with a basic data plan. But large number of the population are still left behind to access a traditional banking. When people are asked why they remain on the fringe of the existing financial system, those who remain unbanked point to not having sufficient funds, high and unpredictable fees, banks being too far away, and lacking the necessary documentation.

Blockchains and cryptocurrencies have several unique properties that can potentially address some of the problems of accessibility and trustworthiness. These include distributed governance, which ensures that no single entity controls the network; open access, which allows anybody with an internet connection to participate; and security through cryptography, which protects the integrity of funds, blockchain allows the transfer of value and information, without third parties, they provide the tools to successfully face the challenge of creating platforms and financial instruments that are transparent, efficient and inclusive.

Ethiopia population will have at their reach a technology that will allow them to have a valuable reserve and robust means of payment to stimulate savings and contribute to the country's development. Blockchains and cryptocurrencies will be an instrument for Ethiopia economic stability and financial independence, coupled with an ambitious vision for the creation of a free, more balanced and fair financial system.

The adoption of blockchain technology in the global marketplace is not simply a temporary trend or fashion, but a firm and continuous shift towards a future in which the management of personal, institutional and potentially state finances will become easier, straightforward, quicker and more transparent.

Such instruments they allow greater efficiency, speed and freedom in all types of transactions, opportunities that have the potential to alter conventional business practices, especially in industries based intermediation for exchange or verification, such as finance, trade, manufacturing and even in areas of human knowledge that usually adopt technological innovations in longer terms, such as law and politics.



## Introducing Amole

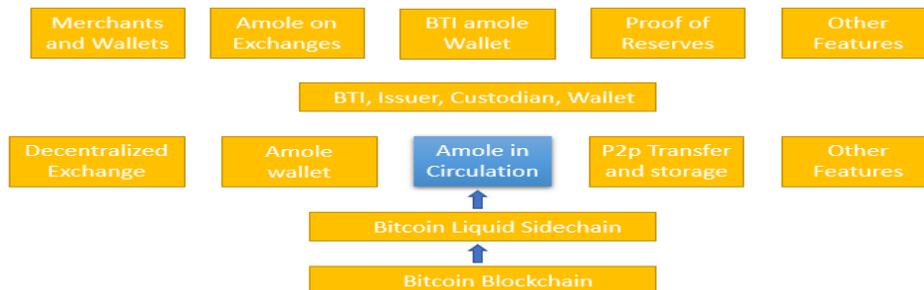
Ethiopia truly needs a reliable digital currency and infrastructure that together can deliver on the promise of “the internet of money.” Now is the time to create a new kind of digital currency built on the foundation of blockchain technology. The mission for **BTI is to create a simple digital currency based on national currency of Ethiopia and financial infrastructure that empowers people.**

Securing financial assets on mobile device should be simple and intuitive. Moving money around should be as easy, cost-effective, and even more safe and secure than sending a text message or sharing a photo, no matter where you live, what you do, or how much you earn. New product innovation and additional entrants to the ecosystem will enable the lowering of barriers to access and cost of capital for everyone and facilitate frictionless payments for more people.

Amole token is made up of three parts that will work together to create a more inclusive financial system:

1. It is built on a secure, scalable, and reliable Bitcoin liquid sidechain
2. It is **backed by a reserve of Ethiopia national currency** designed to give it intrinsic value
3. It is **governed by the independent Association**, tasked with evolving the ecosystem

Bitcoin Element sidechain, the software that implements the liquid Blockchain is open source designed so that anyone can build on it, and Millions of people can depend on for their financial needs. Imagine an open, interoperable ecosystem of financial services that developers and organizations can build to help people and businesses hold and transfer digital Birr for everyday use. With the proliferation of smartphones and wireless data, increasingly more people will be online and able to access digital Birr through these new services. liquid sidechain [Technical paper](#).



**Amole will have three facets:**

**A) MEANS OF EXCHANGE**

It can be used to purchase goods/services and will be redeemable for fiat money and other crypto assets or cryptocurrencies through digital exchange houses.

**B) DIGITAL PLATFORM**

It can perform the functions of digital representation of Ethiopian currency for national and international trade.

**C) SAVINGS AND INVESTMENT FACILITY**

Amole will be available in electronic exchange and will have the necessary characteristics to carry out direct exchanges (Atomic Swaps) in a safe manner and in accordance with the Ethiopia legal framework. Also, will require high standards of transparency to combat money laundering in authorized exchange houses.



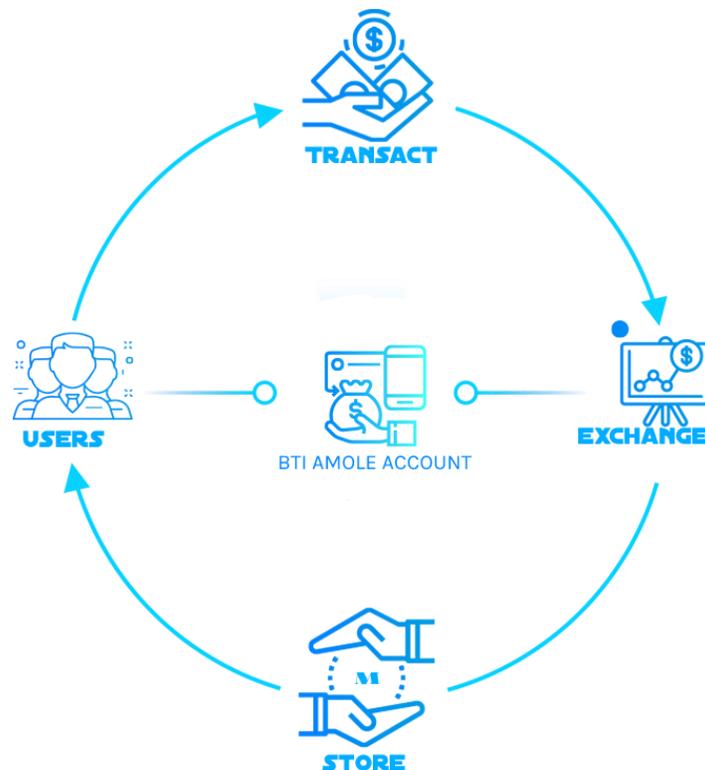
## The Amole Currency and Reserve

Amole is designed to be a stable digital cryptocurrency, each amole ETB unit issued into circulation is backed one-to-one (i.e. one AMOLE ETB unit = one Ethiopian birr). That means anyone with amole has assurance they can convert their digital currency amole ETB unit into Birr at any time.

Amole is redeemable/exchangeable for the underlying fiat currency and if the holder prefers, according to the terms of service of upcoming exchange can swap the equivalent spot value in Bitcoin. Once amole has been issued, it can be transferred, stored, spent, etc. just like bitcoin or any other cryptocurrency. The fiat currency on reserve has gained the properties of a cryptocurrency and price is permanently tie to the price of the underline reserve currency.

At any given time, the balance of fiat currency held in our reserves will be equal to (or greater than) the number of Amoles in circulation. This simple configuration most easily supports a reliable Proof of Reserves process; a process which is fundamental to maintaining the price-parity between amole in circulation and the underlying fiat currency held in reserves.

Users can purchase Amole from our web wallet or from supported Bank/ATM who support amole as a deposit and withdrawal method. Users can also transact and store amole with any bitcoin liquid enabled wallet. Other exchanges, wallets, and merchants are encouraged to reach out to us about integrating Amole as a surrogate for traditional fiat payment method.





Our implementation has the following advantages over other fiat pegged cryptocurrencies:

- Amole exist on the Bitcoin blockchain rather than a less developed/tested “alternative” blockchain nor within closed source software running on centralized, private databases.
- Amole can be used just like bitcoins, i.e. in a p2p, pseudo anonymous, decentralized, cryptographically secure environment
- Amole can be integrated with merchants, exchanges, and wallets just as easily as Bitcoin or any other cryptocurrencies can be integrated.
- Amole inherit the properties of the bitcoin liquid sidechain protocol which include: a decentralized exchange; Browser based, open source, wallet encryption; Bitcoin based transparency, accountability, multiparty security and reporting functions.
- Amole Limited employs a simple but effective approach for conducting Proof of Reserves which significantly reduces our counterparty risk as the custodian of the reserve assets.
- Amole issuance or redemption will not face any pricing or liquidity constraints. Users can buy or sell as many Amole as they want, quickly.
- Amole will not face any market risks such as Black Swan events, liquidity crunches, etc. reserves are maintained in a one to one ratio rather than relying on market forces.
- Amole’s one to one backing implementation is easier for nontechnical users to understand as opposed to collateralization techniques or derivative strategies
- Amole can be implemented on lightning network for micro payment.
- Amole can be implemented to BTCPay Server a free and open source payment processor for merchants wanting to accept amole for their business.

All these advantages and well tested infrastructure amole can utilize, makes it a good value proposition for developing nations like Ethiopia comparing to other proposed digital currency.

Digital cryptocurrency and tokens are not being fully exploited by important actors in society, such as public and private organizations. Both their convenience and the other advantages inherent to the blockchain that sustains them, make us think about the possibility of a massive adoption in the medium term, if the states favor the conditions for this process.

These instruments have revealed new financial opportunities for people. However, they still present great challenges, such as usability, the price volatility and, above all, the resistance of traditional institutions that are forced to think about what their new role will be in the economy of the fourth industrial era.

Our approach also considers the big roll traditional institutions can play and contribute to provides user-friendly, efficient and secure technology aim to revolutionize capital transfer and address some of the inherent inefficiencies in traditional financial processes. Using amole, banks can source liquidity on demand in real time without having to pre-funded accounts in another bank.



## The Amole Organization

To make the mission of Amole a reality a simple currency and financial infrastructure that empowers millions of people the Amole Reserve need a governing entity that is comprised of diverse and independent members. Together, they make decisions on the governance of the network and reserve. Initially, this group consists of the founding members businesses, nonprofit and multilateral organizations, and academic institutions.

The association also serves as the entity through which the amole Reserve is managed, and hence the stability and growth of the amole economy are achieved. The association is the only party able to create (mint) and destroy (burn) Amole.

Coins are only minted when authorized individual or company have purchased those coins from the association with birr to fully back the new coins. Coins are only burned when the authorized sellers sell Amole coin to the association in exchange for the underlying assets. Since authorized resellers will always be able to sell amole coins to the reserve at a price equal to the value the Amole Reserve acts as a “buyer of last resort.” These activities of the association are governed and constrained by a Reserve Management Policy that can only be changed by a supermajority of the association members according to the rule and regulation.

We recognize that our implementation isn’t perfectly decentralized since custodian reserve of Birr bank account crated under centralized entity. However, we believe this implementation sets the foundation for building future innovations that will eliminate these weaknesses, create a robust platform for new products and services, and support the growth and utility of blockchain over the long run.

### **Trust**

Building a viable stablecoin is as much of a trust problem as it is a computer science one. While Bitcoin created a system based on cryptographic proof instead of trust, a fiat-pegged stablecoin requires both due to its reliance on a centralized issuer.

Desirable outcomes in a system that relies (at least in part) on trust requires oversight. In the context of a stablecoin, we submit that the issuer must be licensed and subject to regulatory supervision. From this, transparency and examination become requirements of the system, ensuring its integrity.

### **Proof-of-Solvency**

One desirable outcome of a stablecoin is convergence between the tokens issued and the Ethiopian birr exchanged for their creation. The number of tokens issued and in circulation can be observed on the blockchain, however, verifying the underlying Ethiopian birr balance to demonstrate proof-of-solvency requires examination by a trusted party. For assurance, we propose that the audit committee of the board of directors of BTI engage an independent registered public accounting firm to regularly examine and attest to the underlying Birr balance in accordance with the attestation standards established by the Ethiopia Institute of Certified Public Accountants.

### **Creation, Redemption, and Transfer**

A simple and elegant mechanism for creation and redemption is necessary to promote usability and encourage adoption. We achieve this by allowing customers to create and redeem AMOLE on the BTI platform and other means can be



implemented to existing infrastructure like any bank ATM. Amole are created at the time of withdrawal from any participating platform. customers may exchange Birr for Amole at a 1:1 exchange rate by initiating a withdrawal from BTI platform, participating bank/ATM to any Amole address they specify.

### **Contract Specification**

The specifications of the Amole require a network that allows for the development of decentralized applications (including smart contracts) that may be used to store and transfer value according to certain conditions set by the developer. The BITCOIN network fulfills this criterion and has a technical standard for tokens, the 'Bitcoin Network' standard, which has experienced widespread, global adoption. As a result, there already exists a plethora of software and services that support tokens and provide access to and usability for end users

some of these innovations include Mobile payment facilitation between users and other parties, including other users and merchants

- Instant or near instant value transfer between diferant parties (such as banks, exchanges, individual)
- Use of smart contracts and multi signature capabilities to further improve the general security process, Proof of Reserves, and enable new features.
- inter-exchange settlement network linking together cryptocurrency exchanges and institutions around the world.
- Liquid Network Lightning payment enabling faster transactions, and micro payment
- Easy integration to existing payment processor [BTCPay](#).

### **Flow of Funds Process**

There are five steps in the lifecycle of Amole.

1. User deposits fiat currency into BTI bank account
2. amole generates and credits the user's amole account. Amole enter circulation. Amount of fiat currency deposited by user = amount of amole issued to user (i.e. 10k birr deposited = 10k Amole issued)
3. Users transact with amole. The user can transfer, exchange, and store Amole via a p2p open source, pseudo anonymous, Bitcoin based platform.
4. The user deposits amole with BTI for redemption into fiat currency
5. BTI destroys the Amole and sends fiat currency to the user's bank account

Users can obtain amole via an exchange, bank, ATM or another individual. Once amole enters circulation it can be traded freely between any business or individual. users can purchase amole from any participating bank ATM without having bank account using phone app.



## The main Applications

In this section we'll summarize and discuss the main applications of Amole across the ecosystem and farther consumers. We break up the beneficiaries into Four user groups: Exchanges, Individuals, Merchants, and government.

The main benefits, applicable to all groups:

- Properties of Bitcoin bestowed upon other asset classes
- No volatile, Familiar unit of account
- Faster, more secure, less expensive, and transparent
- Interoperability with another digital asset.

### For Exchanges

Exchange operators understand that accepting fiat deposits and withdrawals using legacy financial systems can be complicated, slow, and expensive. Some of these issues include

- Identifying the right payment providers for your exchange
- reversible transactions, fraud, high fees, etc.
- Integrating the platform with banks who have no APIs
- Liaising with these banks to coordinate compliance, security, and to build trust
- Prohibitive costs for small value transfers
- 3-7 days for wire transfers to clear
- unfavorable cost of implementation

By offering Amoles, an exchange can relieve themselves of the above complications and gain additional benefits, such as:

- Deposit/withdrawal/storage method rather than using traditional financial processes.
- Allows users to move fiat in and out of exchange more freely, quickly, cheaply
- Easily add other currencies as trading pairs to the platform
- Secure customer assets purely through accepted cryptographic protocols
  - [Multisignature](#) security, offline and online wallets, [HD wallets](#), etc.
- Conduct audits easier and more securely in a purely crypto environment
- Anything one can do with Bitcoin as an exchange can be done with amole

### For Individuals

There are many types of individual Bitcoin users in the world today. From traders looking to earn profits daily; to long term investors looking to store their Bitcoins securely; to tech-savvy shoppers looking to avoid credit card fees or maintain their privacy; to philosophical users looking to change the world; to those looking to remit payments globally more effectively; to those in third world countries looking for access to financial services for the first time; to developers looking to create new technologies; to all those who have found many uses for Bitcoin. For each of these individuals, we believe amoles are useful in similar ways.



- Transact in birr/fiat value, pseudo-anonymously, without any middlemen/intermediaries
- Cold store birr/fiat value by securing one's own private keys
- Avoid the risk of storing fiat on exchanges move crypto-fiat in and out of exchanges easily
- For individuals unable to open a bank account to store fiat value
- Easily enhance applications that work with bitcoin to also support Amole
- Anything one can do with Bitcoin as an individual one can also do with amole

### **For Merchants**

Merchants want to focus on their business, not on payments. The lack of inexpensive, ubiquitous payment solutions continues to plague large and small merchants in Ethiopia. Merchants deserve more. Here are some of the ways Amole can help them:

- Price goods in fiat value rather than Bitcoin and benefits from inexpensive existing infrastructure built for bitcoin.
- Avoid conversion from Bitcoin to birr/fiat associated fees and processes.
- Prevent chargebacks, and Fraud
- Accept small payment without worrying high transaction costs by reduce fees more than 90%
- Provide novel services because of fiat crypto features
- A user-friendly checkout page for your customers.
- Manage, generate reports, and search for your invoices easily.
- Reducing operating and accounting cost.

### **For government**

Governments, all over the world have their stated number of public projects, such as public utilities like electricity, water supply, rail ways, building road etc. and expenditure programs include health and welfare, defense spending, social programs, and interest and repayment of principal on government debt. Under this view, the role of the tax system is to raise an amount of revenue that is tied to the level of government services.

For those countries with significant sources of revenue other than taxes, government can fund operations with less reliance on tax revenue. Governments in low income countries have the difficult task of making wide-ranging decisions about public spending, taxation, and borrowing in aim of helping their countries maintain long-term debt sustainability, achieve higher economic growth, and ultimately reduce poverty.

The critical point is that a country must have the capacity to administer tax adequately, community and consumer misunderstanding of tax in combination with administrative challenge effective tax collection, increase the prevalence of un-collectability of tax. Government increase the rate of an existing tax to overcome this shortcoming, this will neither necessarily increase revenues proportionately nor be costless. If VAT can be administered adequately, however, the conventional conclusion that it offers the best way for a country to make up revenue losses from trade liberalization and lowering the tax rate for community and consumer.

Here are some of the way's amole can help:

- A portion of VAT can directly go to internal revenue account upon transaction
- Appropriate VAT can be set to individual transaction depending on nature of transaction or jurisdiction



- Exempt goods and services include supply of medicines, humanitarian related supplies, education and financial services can be programmed into digital money.
- Transparency and frictionless collection and transparent tax appropriation
- Reduce burden from retailer's issue invoices after every sell
- Reduce accounting cost for the internal revenue, community, and customers
- ultimately reduce tax rate due to adequate tax collection.

The use of blockchains is beginning to gain popularity globally. It currently has hundreds of applications. This' distributed electronic records technology can be leveraged for all kinds of information: medical records, authorship and data authentication, food distribution, real estate and more, offering even the ability to program automatic execution "smart contracts", which promise to revolutionize many activities and industries around the world.

Amole will operate with blockchain technology, following the highest standards to integrity, transparency, auditability and governance. Thus, asset will generate trust among international investors by having its foundation firmly established in a context of clear policies and a solid connection with the real economy.

## How to Get Involved

The BTI envisions a vibrant ecosystem to support the use of Amole. BTI defines success as enabling any person or business to have fair, affordable, and instant access to their money. For example, success will mean that a person can access to fast and simple way to send money to family, and a college student can pay their bookstore as easily as they can send a text or a farmer able to sell his product without intermediary taking fruit of their labor.

Our journey is just beginning, and we are asking the community to help. If you believe in what BTI aiming for Millions of people, share your perspective and join in. Your feedback is needed to make financial inclusion a reality. BTI will work with the community in the coming months and continue to partner with institution and policymakers to further this mission.

- **If you are a researcher or protocol developer**, an early preview of the amole will be available on Open Source License, with accompanying documentation. [here](#)
- **If you want to learn about BTI**, read more [here](#).
- **If your organization is interested in becoming a Founding Member to BTI**, contact as [here](#).

BTI is committed to stimulating a strong endogenous demand that benefits the stability of the digital currency. The policies to be applied for the promotion of amole will also be aimed at increasing the platform's attractiveness as an instrument for the development of innovations and applications that contribute to the growth and financial autonomy of Ethiopia with projection to other neighboring emerging economies.



## Conclusion

We have proposed a solution for a stable currency built on a secure open-source Bitcoin Liquid sidechain that establishes trust through cryptographic proof and regulatory oversight. A reliable Proof of Reserves implementation on most secure, well tested blockchain public ledger in existence. Amoles are fully reserved in a one-to-one ratio, completely independent of market forces, pricing, or liquidity constraints. Our implementation involves linking licensed financial institutions and examiners to form a network of trust. Together, these implementations form amole, a regulated stable coin that can serve as a viable medium of exchange and unit of account for centralized and decentralized applications. Our team is composed of experienced and respected entrepreneurs from the Bitcoin ecosystem and beyond. Our hope is to create more access to better, cheaper, and open financial services no matter who you are, where you live, what you do, or how much you have. Join us and help turn this vision into a reality for Millions of people.



## Glossary of Terms

*Digital currency: As defined by [https://en.wikipedia.org/wiki/Digital\\_currency](https://en.wikipedia.org/wiki/Digital_currency)*

*Cryptocurrency or decentralized digital currency: any type of cryptocurrency that is opensource, cryptographically secure, and uses a distributed ledger. See: <https://en.wikipedia.org/wiki/Cryptocurrency>*

*Real-world currency, or fiat currency, or national/sovereign currency: All types of currency that are not cryptocurrencies as defined above.*

*Cryptocurrency system: A collection of software and processes primarily created to enable the existence of a cryptocurrency.*

*Legacy financial system: any financial system that is not a cryptocurrency system.*

*Utility backed digital tokens, a.k.a Daps: A decentralized digital token whose value is derived from the usefulness of its application rather than just being a value transfer system.*

*Asset backed/pegged cryptocurrency: Any cryptocurrency whose price is pegged to a real-world asset, i.e. it's not a "utility backed" cryptocurrency.*

*Amole(s): a single unit (or multiple units) of fiat-pegged cryptocurrency issued by BTI Limited.*

*Proof of Reserves: The process by which the issuer of any asset backed decentralized digital token, cryptographically/mathematically proves that all tokens that have been issued are fully reserved and backed by the underlying asset*

**Amole:** *Named after the ancient salt-bar, currency used in ancient Ethiopia as early as the 16th century for peer to peer value, goods and services exchanges.*



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