

The background of the entire page is a photograph of a rural landscape, featuring a field of crops in the foreground and a line of trees in the distance. The image is overlaid with a semi-transparent blue filter. In the center, there is a white-bordered square containing the logo and tagline.

# kora

An infrastructure for  
**inclusive, community**  
**owned** financial systems

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# Executive Summary

Kora is a popular musical instrument in the Western/Eastern region of Africa frequently played in songs of celebration, or to pass a message of hope.

Kora is also a project of hope for billions of people who are underserved by the current financial system.

While there has been progress toward financial inclusion, an estimated 2 billion adults worldwide don't have a basic account.

Barriers to account-opening include distance from a financial service provider, lack of necessary documentation papers, and lack of trust in financial service providers.

We believe existing platforms fail to address users' lack of access to electricity, the Internet, or capital to afford a smartphone as well as lack of understanding around technology and finance.

As a result, we estimate that billions of people cannot grow and accumulate wealth, causing a humanitarian and economic crisis that leaves out a third of the world's potential for value creation.

The Kora Network is expected to provide a low-cost, financial services platform for all.

Accessible by SMS/USSD on feature phones or with Internet via a mobile app and powered by blockchain technology, the Kora Network is expected to lower the cost to serve for low-income populations and brings them into the global economy.

We aim to free the trapped capital, intellect, and creativity of the long tail through self-sustaining, community-owned ecosystems.

# Problem

Access to financial services is uneven and expensive due to five main barriers.



## High Cost to Serve

Opening bank branches in rural or remote areas is unprofitable due to high costs such as property fees, staff headcount, and IT infrastructure. To offset these costs, banks charge high fees for account maintenance, ATM withdrawals and money transfers. Physical travel is another issue; it can sometimes take more than a day to reach bank branches or ATMs.



## Misconception that the Underserved have Little Value

The general perception is that underserved customers would be transacting in “small” amounts. However, PWC estimates that the global unbanked population holds at least \$360 billion in unmet deposits in 2016 alone. In addition, a 2016 McKinsey report estimates that widespread adoption of financial services through digital finance could result in a \$3.2 trillion increase in GDP of all economies by 2025.



## Lack of Identification Documents

According to the World Bank, 1.5 billion people worldwide lack any form of valid identification. Official or valid ID for opening a bank account is often difficult to obtain in developing countries.



## Lack of Trust and Technological Understanding

Many people without bank accounts perceive banks as unsafe. There still exists a widespread lack of trust in financial technology, including ATM's and online banking.



## Lack of Financial Literacy

We believe that with limited financial literacy, people are at risk of making poor decisions that may adversely affect them. They can take loans with interest rates they cannot afford to pay, get involved in pyramid schemes, or pay unreasonably high charges on remittances or other transactions.

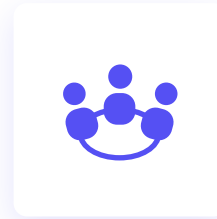
# Existing Solutions

There are many groups working on this challenge. Each has its own approach and shortfalls.



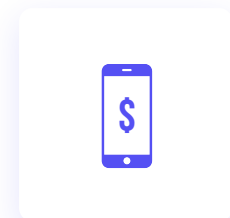
## **Banks**

Banks continue to account for the majority of financial services worldwide, but do not target the underserved in particular as they are difficult to serve and often lack proper identification.



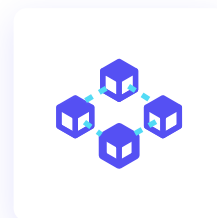
## **Local Ad Hoc Networks**

Local ad hoc networks like friends and family, or hawalas, an informal agent-based system have always existed. These arrangements fill gaps in day-to-day life, but are inconsistent, unable to scale, and cannot be used as a form of credit history.



## **Mobile Money**

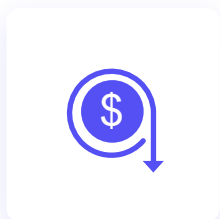
Mobile Money businesses provide a service that brings value through transaction speed, but interoperability, both between providers, and between countries, is a major issue. They also hoard data as a proprietary advantage instead of giving ownership back to the customer.



## **Blockchain Projects**

Blockchain projects can store and transfer value across borders at enormous scale and low cost. But we believe a sophisticated understanding of technology, a \$50 smartphone, and Internet at \$10 a month are required to access such projects. As the average underserved person in Africa lives on less than \$2 a day, these projects are out of scope for them.

By learning from the past, we can build a better future. The solution for wide-scale, sustainable adoption would require:



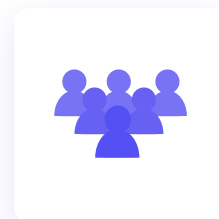
### Low Cost

The people with the least wealth are those who need financial services the most. We aim to include everyone in the Kora Network.



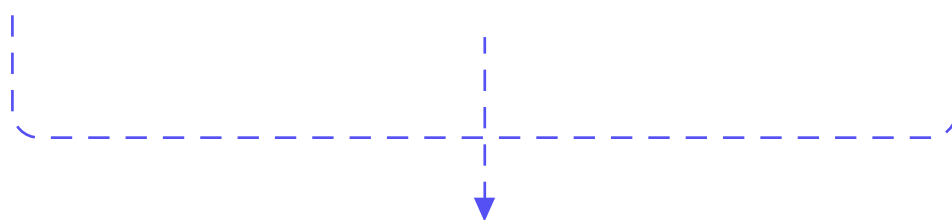
### Universal Access

Even if they don't have Internet or extensive technological understanding, everyone will benefit from Kora.

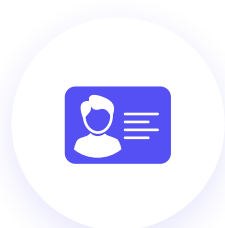


### Engagement with Existing Communities

Local financial service providers and networks have always existed. Kora will enable them instead of replacing them.



Money Transfer



Identity



Secure Storage



Market Places

# The Kora Ecosystem

Kora will build wealth by creating self-sustaining, community-owned ecosystems. “Self-sustaining” means the wealth in the community as a whole grows, and “community-owned” means participants in the existing community take on most of the key roles within the ecosystem.

## eFiat

eFiat are digital versions of national currencies that are 100% backed by cash reserves, and redeemable on a 1:1 basis. eFiat will increase ease of use and adoption by offering users the benefits of digital currency in a form they understand and trust.

## Participants



Users can be anyone who wants to join the Kora Network. All users will comply with the regulatory framework in their



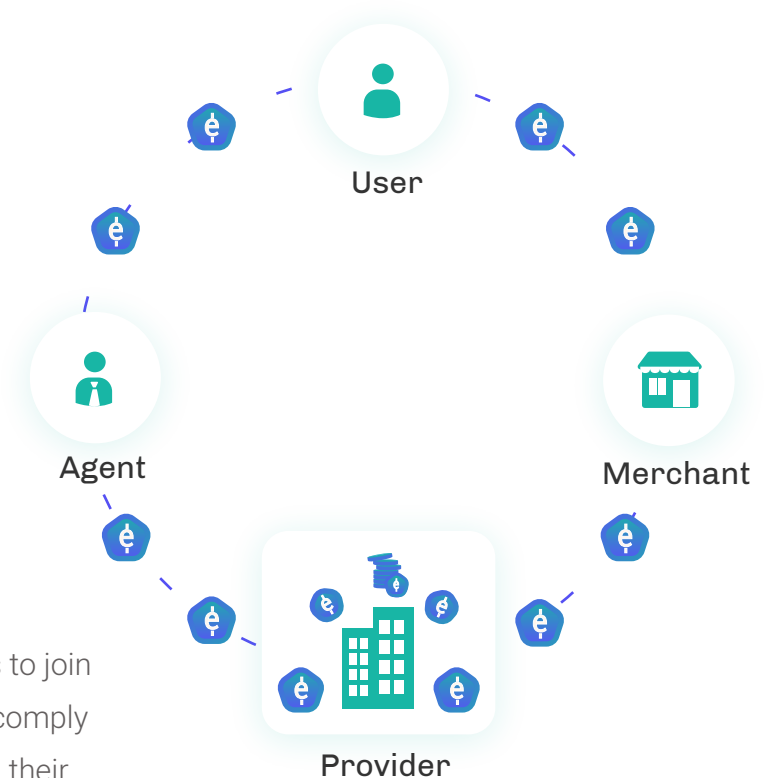
Providers will give users access to financial services on the Kora Network and are responsible for regulatory compliance. They are banks or other financial service providers such as Mobile Transfer Operators or Mobile Money Operators. They use the Kora Network because they receive a turn-key platform, access to a new market, and a white-label customer interface with KYC tools.



Agents will be the cash points that convert between eFiat and physical cash for commissions. They will be small businesses that accumulate cash, such as local convenience stores and gas stations.

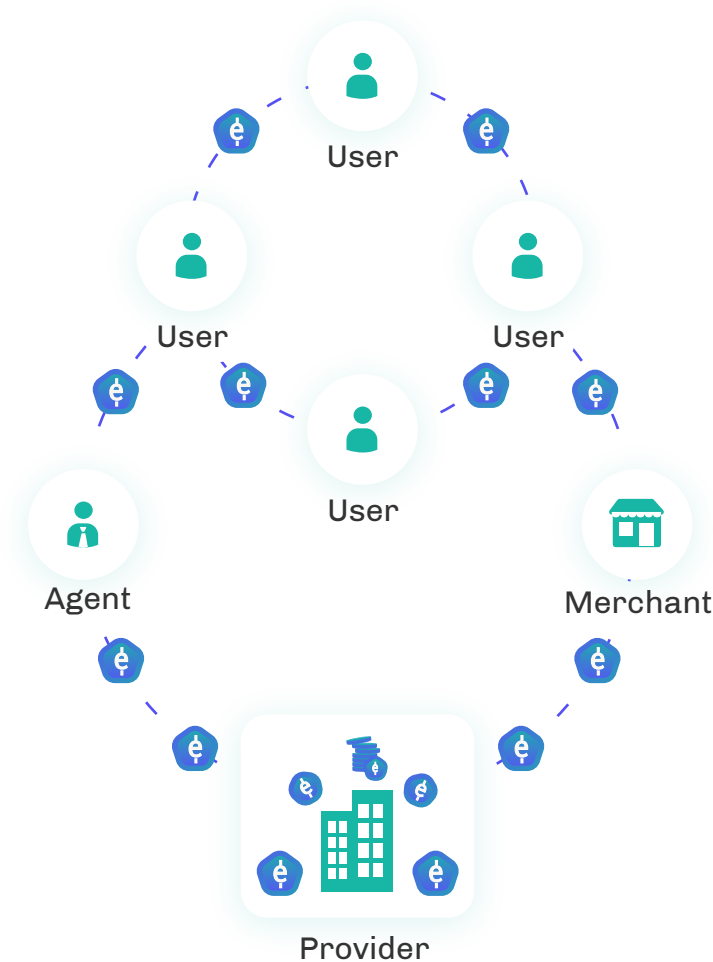


Merchants will be businesses that accept eFiat as payment methods.



# Community Value Networks

Kora aims to empower instead of displace existing communities. Communities already providing ad hoc financial services join Kora Network as Community Value Network (CVNs). CVNs can be utilized for a variety of use cases:



## FARMING COOPERATIVES

Farming cooperatives can use a CVN to ensure the proper use of funds when buying commodities, selling produce and distributing proceeds.

## SAVINGS GROUPS

Savings groups can use a CVN to securely pool capital in eFiat and govern the use of that capital.

## NATIONAL TRADE UNIONS

National trade unions can set up CVNs both nationally and as local chapters to establish anti-corruption practices and operational transparency.



# Driving Adoption



## Universal Access

Feature phones and SMS are still the dominant means of communication in developing nations, and Kora can be utilized with even the cheapest \$5 feature phones, or users can input a short code-number via USSD. Kora will also provide a smartphone and web-based application. The user's transaction history will be stored on the blockchain and will be accessible if the user later upgrades to a smartphone.



## Identity

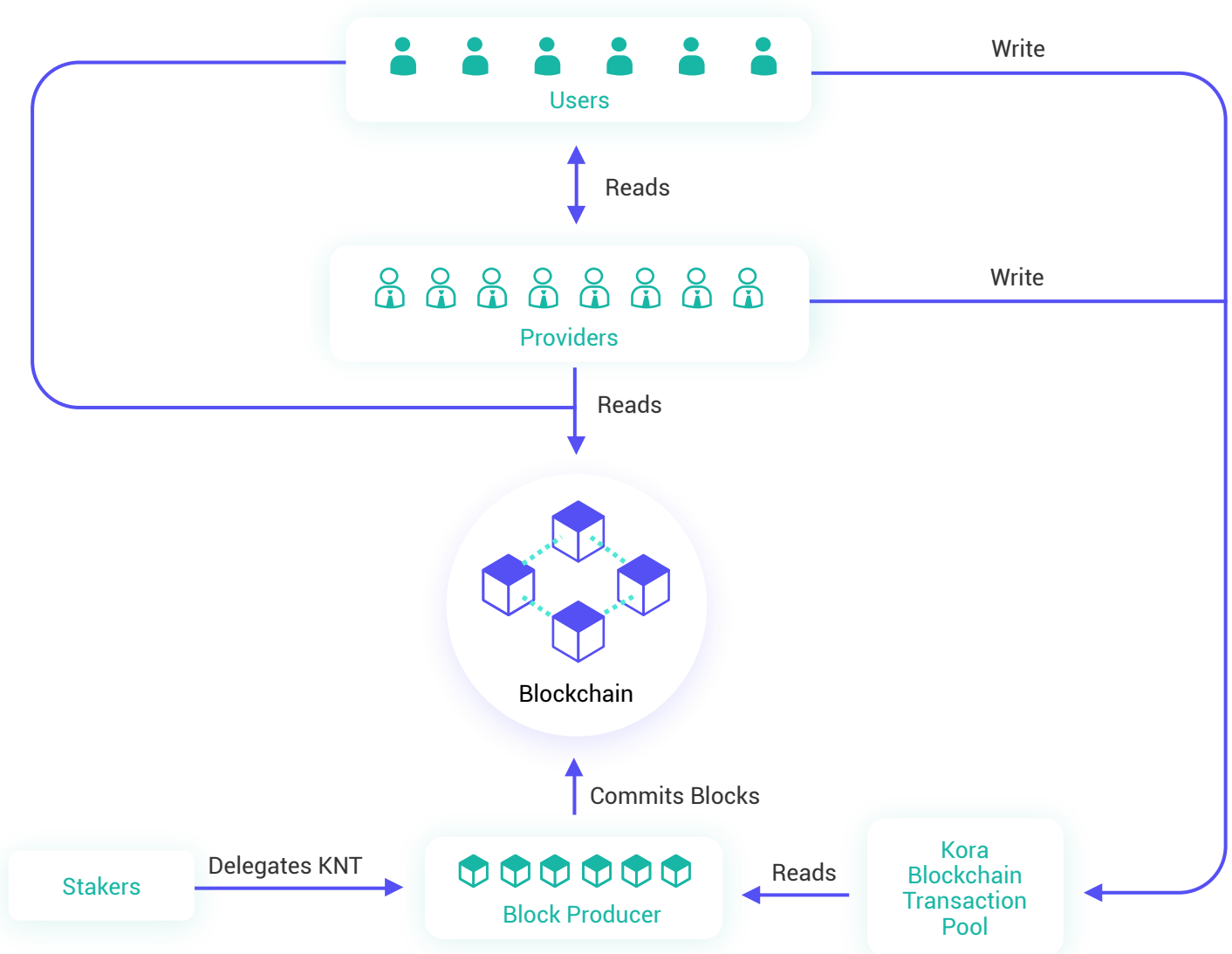
Identity is a significant barrier for those who cannot provide documentation to verify their activities. Kora will provide a flexible on-boarding process that allows users to join the network with whatever information they have. Upon joining, users will build reputation scores connected to their actions, as well as the actions of the users they're connected to and transact with. The user's transaction limits and access will increase as they add more documentation and prove themselves to be honest and credible actors. The actual "identity" of users draws on the model pioneered by uPort, with a focus on both privacy and recoverability.



## Low Cost

The Kora Network aims to simplify operations so that new Providers can grant financial services to Users without the cost of establishing and running a front-to-back financial institution. Kora will make launching a financial services business as cheap and easy as launching a new instance on AWS -- at low cost and with access to all functionality on the Kora Network. Core software will be run on the decentralized stack, and anyone can customize this software. Members can link and exchange financial services to other users on the Kora Network with low costs and near-instantaneous transaction speeds. The balance of power will shift, and financial service providers would have to compete for customers, driving down prices for users.

# Network Architecture



The Kora Network will be built on Ethermint, which implements the Ethereum Virtual Machine with Delegated Proof-of-Stake (DPoS) Tendermint consensus. We chose Ethermint because it supports the Ethereum development community, which is the largest in the blockchain space, while also supporting high volumes of transactions and providing flexibility for more extensive user privacy.

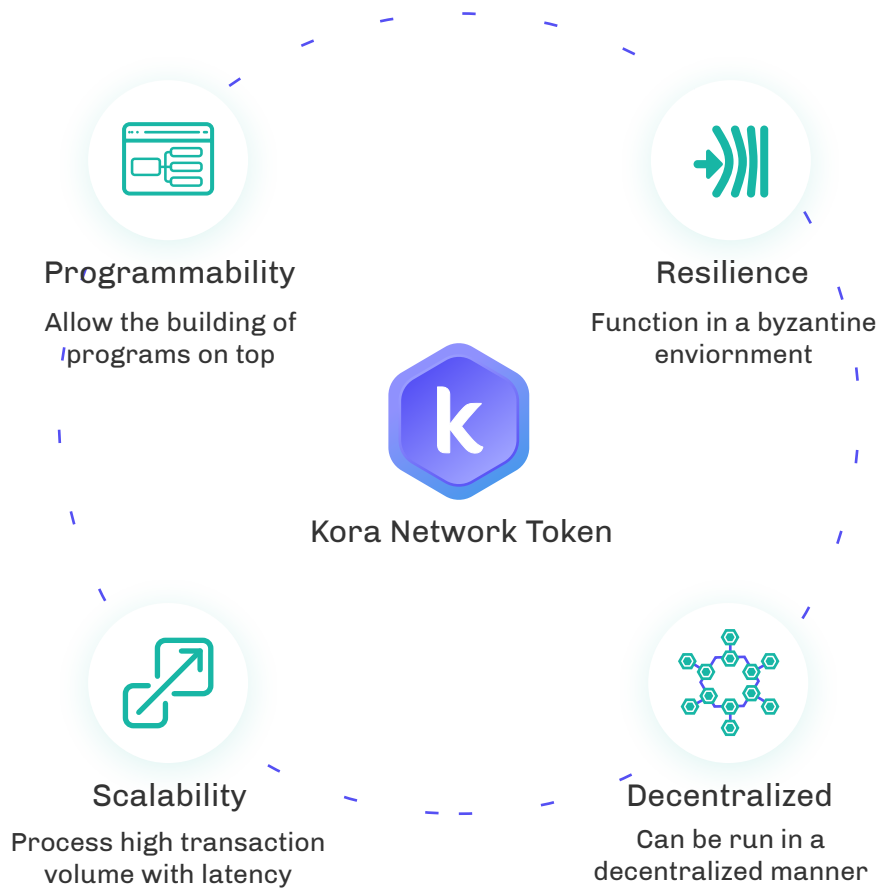
Producers will compete to be selected by publishing their hardware and network specifications, displaying their digital identity and making the Kora Network compliant with national regulations.

Only the block producers with the best specifications and highest processing time will be consistently voted for. In this way, we will produce large blocks with significant amounts of transactions in a latency of three to five seconds, leading to the scalability required for legitimate use cases.

Ethermint integrates with the Cosmos Network in order to build an “internet of blockchains.” By integrating with Cosmos, we will be able to connect with parallel blockchains like Ethereum, Bitcoin, the Cosmos decentralized exchange and various others. As a result, the Kora Network is 100% interoperable with other blockchains.

# Kora Network Token (KNT)

KNT will be used as the staking unit for selecting block producers, as well as a single medium to pay for costs incurred by the Kora Network. Holding KNT equates to having a partial role in the Kora Network.



When a user transacts on Kora, they will pay a fee set in KNT by the validating Block Producer. The Block Producer shares this fee with the holders who voted for them.

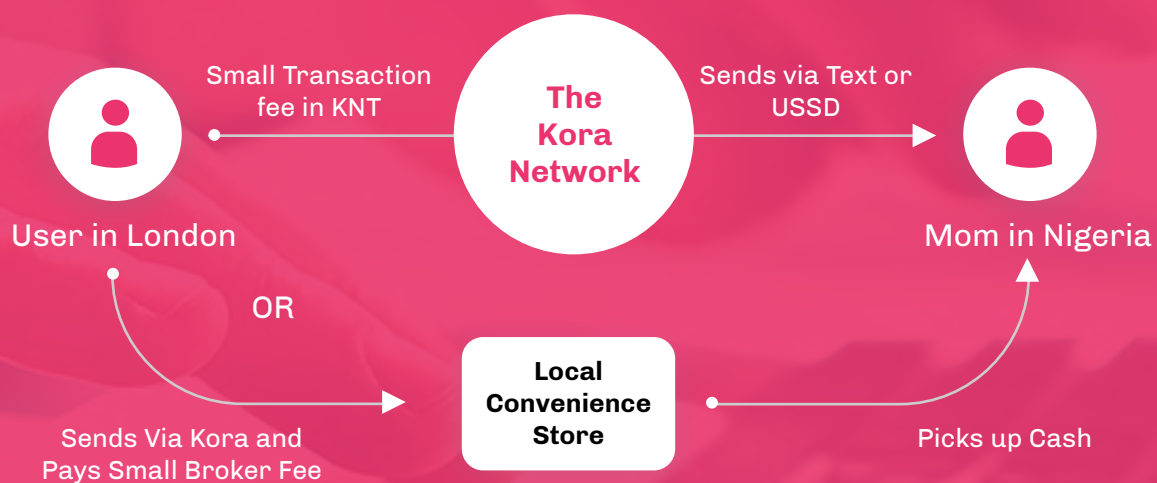
High transaction fees, which only benefit the block producers and stakers who voted for them, will prevent users from transacting on the Kora Network. The less transactions that occur on the blockchain, the less rewards all block producers and stakers will receive. Thus, KNT holders are incentivized to vote in block producers who keep transaction fees low.

# Use Cases

The Kora Network can add value in variety of scenarios.

## Money Transfer & Payments

Today, if someone living in London wants to send money back to their mother in a village in Nigeria, they have to go to a Western Union in London, which takes about 5-8%+ fees. Then, their granddad has to go or send someone to travel two, three hours to the nearest place for the cash. With Kora, users will also be able to pay for mobile airtime and data subscriptions, bills, merchants and third-party services for energy, education, micro insurance and other use cases.



### Local Convenience Store

- Converts between eflat and cash
- Verifies identity of community members through existing relationships

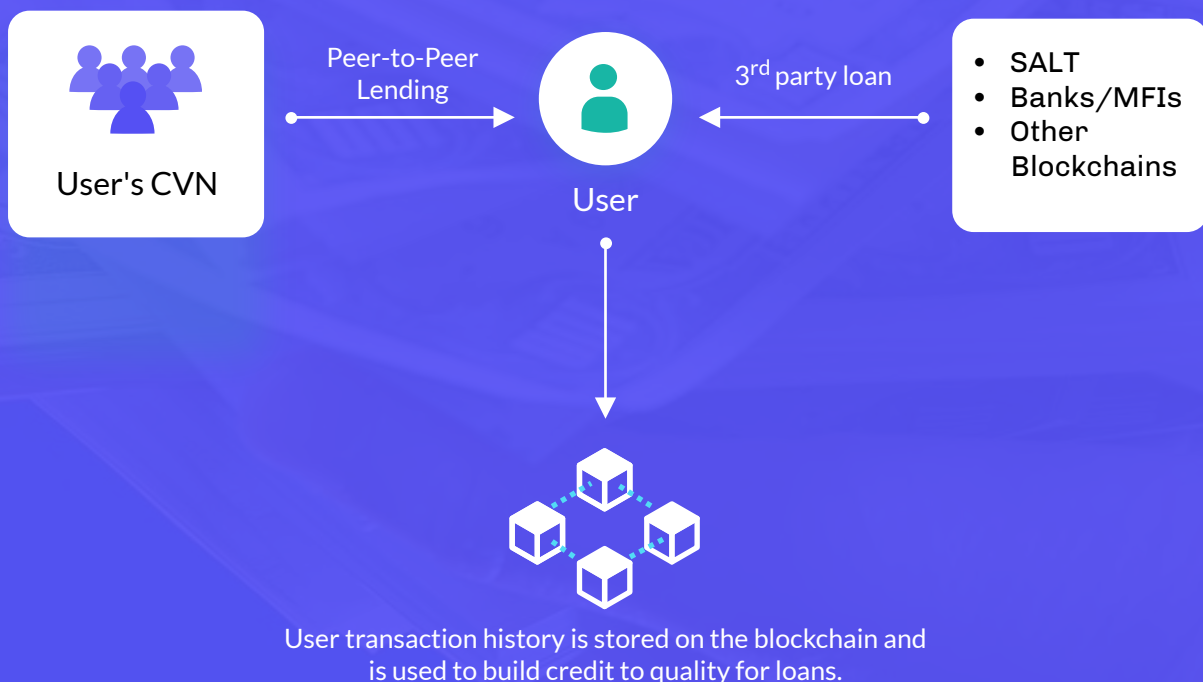
### Mom in Nigeria

- Receives via Text or USSD or goes to local convenience store
- Uses transaction history/balance as as proof for taking out a loan
- Uses funds to pay for other services such as data, bill payments ets.

# Lending & Loaning

Today, if a citizen of Botswana wants to take out a loan from the bank or another lender to start a small or medium scale business, they need to provide multiple forms of ID, must be educated enough by the standards of the bank or lender, must provide previous statements of accounts for a minimum of one year, must provide valid business registrations from a centralised operator and signed referrals who have sufficient verified balances.

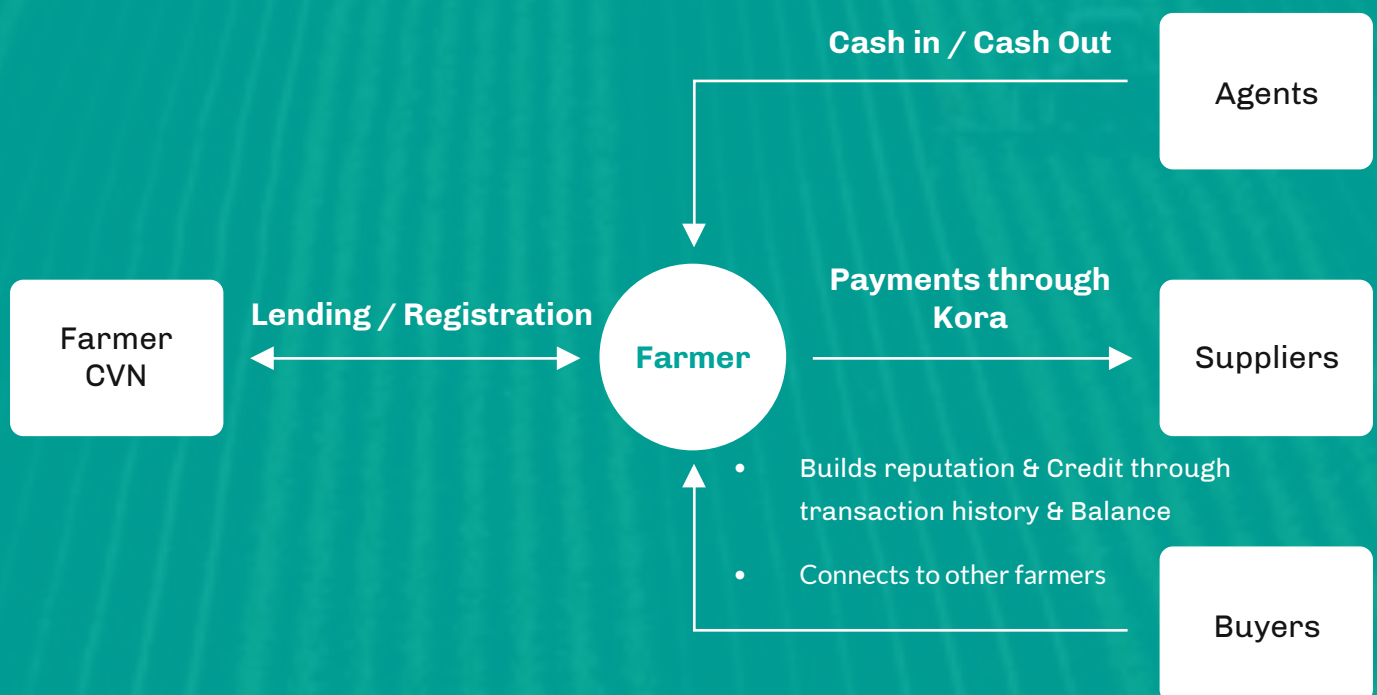
They must also provide collateral worth more than the amount being loaned, and if they're acquiring property, it must be located in major cities where the land can be easily used as collateral in case of a loan default. Essentially, the user needs to prove that they don't need the loan in order to qualify for a loan.





# Agriculture

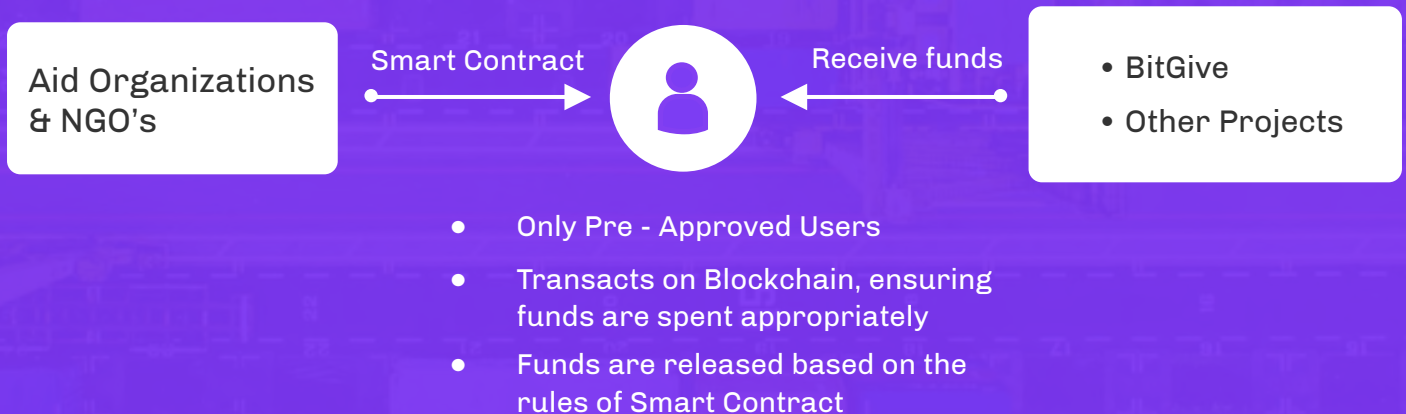
Across Africa, agricultural activities are conducted in the rural areas, characterized by a high density of unbanked people. Large corporations receive their agricultural supply and raw materials from local farmers, but the farmers are not paid until after three to four weeks of supplying due to the widespread lack of financial identities or bank accounts. Most transactions are cash-based through every step in the supply chain, meaning that the farmer does not receive full payment due to middleman fees and corruption.



# International Distribution of Funds

One of the greatest challenges of international aid is corruption. Multiple channels are needed for aid to get to its intended target, but at each channel, a large portion of money is unaccounted for. Kora solves this by distributing and tracking funds on the blockchain, so communities receive the full help they need.

For humanitarian missions, every user in the country affected can be given a humanitarian Kora account, which will enable the user to receive transactions with vouchers that allow them to access





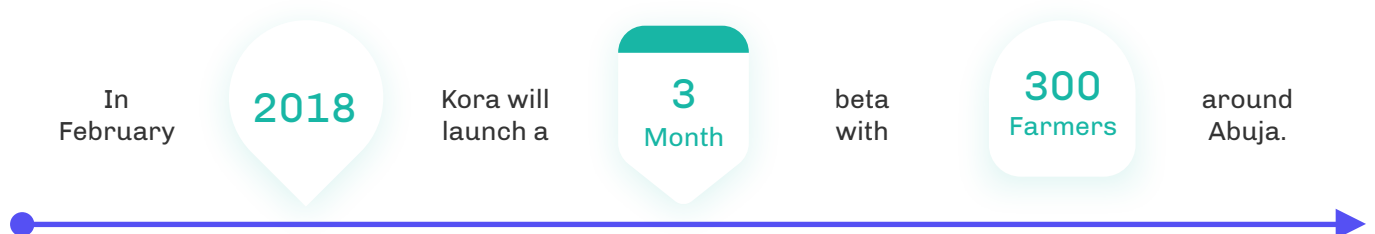
# Beta

We are partnering with ThriveAgric, a farming aggregator in Nigeria with a network of 25,000 farmers, to profitably and sustainably yield crops.

## Problem

ThriveAgric is based in Abuja, the capital of Nigeria, while the farmers are located in surrounding rural areas. Every two weeks, one farmer from each village has to drive two hours into the city, where they receive cash for all other farmers in their village. This farmer drives back and the others go to his or her house to pick up their share.

This system is inconvenient as there is no accounting system for funds and has a high risk of robbery. In November 2017, one farmer was robbed on his way back. The farmer was unharmed, but all funds were lost. As ThriveAgric scales, such incidents will become more frequent.

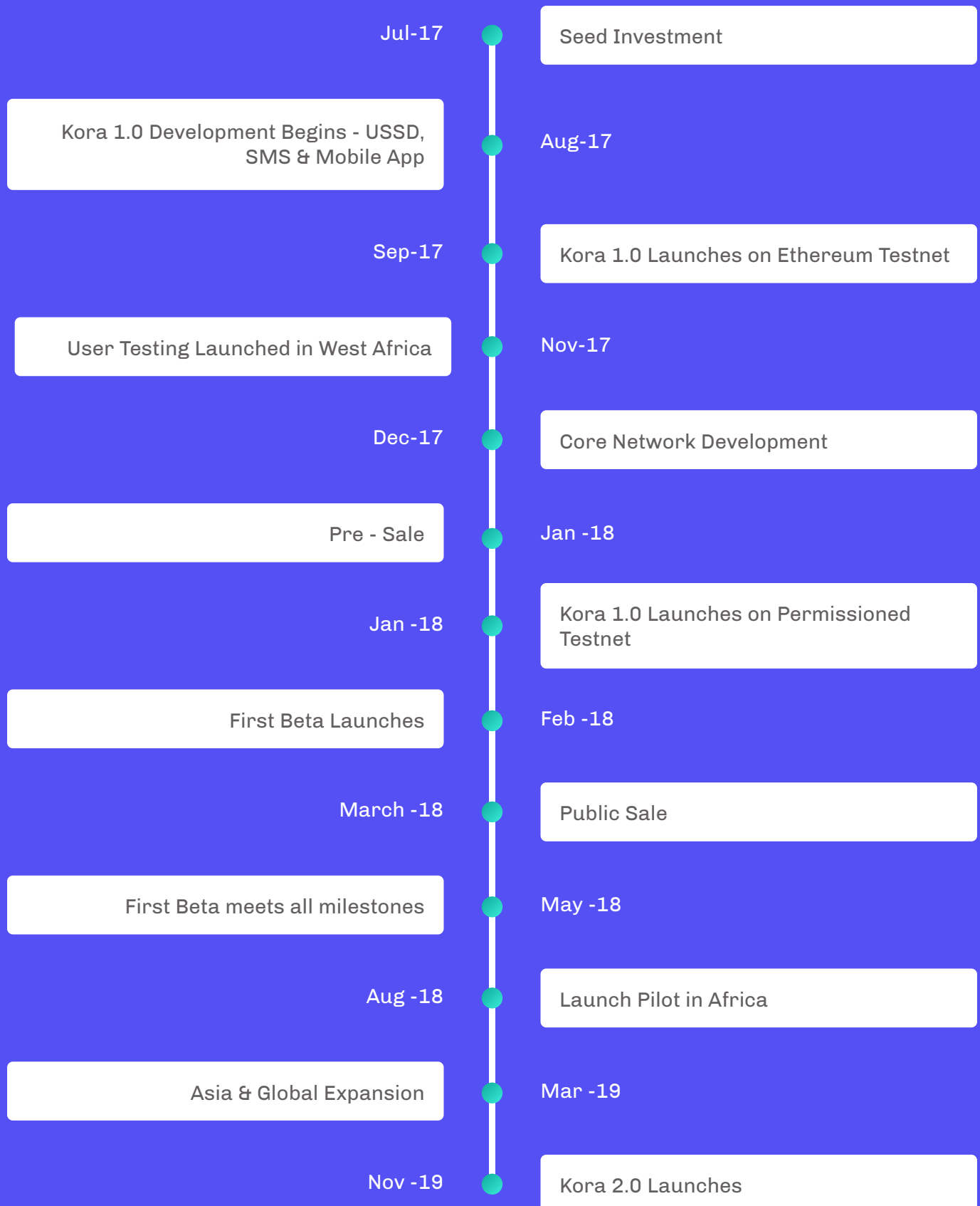


In this beta, we will solve three major problems for farmers: payments from buyers, money transfers between each other, and the riskiness of cash. Farmers will be able to pool their capital into a CVN, the first of its kind.

We hope to build a foundation of stability, security and reliability that will allow us to continue on our goal of delivering value to our users.

# Kora Roadmap

Kora's short-term vision is to bring robust financial services to everyone by 2021.

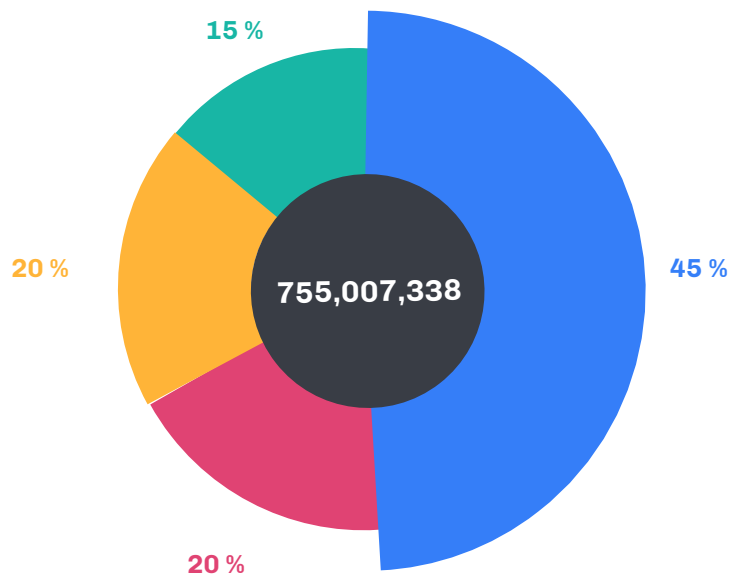


# Token Sale Details

The launch of the Kora Network, and the token creation and emission process, will be organized around the Kora Network public blockchain. The goal of our token sale is to decentralize ownership of KNT to ensure the crypto-economic stability of our network, and to exchange KNT for capital to execute on our vision of unleashing the world's potential for wealth creation and becoming a leader in financial services.

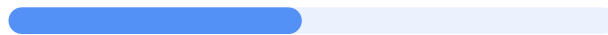
- Contributors supporting the development of the Kora Network can do so by sending Bitcoin or Ether to the designated address.
- The KNT received by a contributor is fixed at the USD price at which they bought it. The hard-cap for the Token Sale is \$24 million.
- Further details about the Token Sale will be released online. Sign up on our website to stay up to date, and to complete the contribution process.
- The Token Sale will be split into two phases: Pre-Sale and Public Sale.
- The minimum investment amount for the Pre-Sale is \$5000.
- There is no minimum investment amount for the Public Sale, and the maximum is \$1 million per unique identity.
- Excess contributions will be refunded.
- Kora Technologies Limited controls the contract, and the multi-sig address to which funds will be sent.
- KNT will be distributed to Contributors as an ERC20 token after the token sale is completed. KNT-ERC20 tokens can be redeemed for KNT on the Kora Network when the public blockchain is launched in Q3 2018.
- All unsold tokens will be burnt.

# KNT Supply



## Token Sale

45 %



339,753,302

Sold to raise funds and increase liquidity of KNT.

## Reserved for growth

20 %

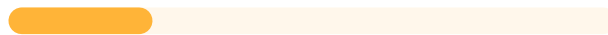


151,001,468

Locked up for a minimum of one year and released as necessary. Used for establishing partnerships, onboarding users, and expansion into new markets.

## Reserved for R&D

20 %



151,001,468

Locked up for minimum of two years and released as necessary. Used to develop protocol and shared infrastructure.

## Team

15 %

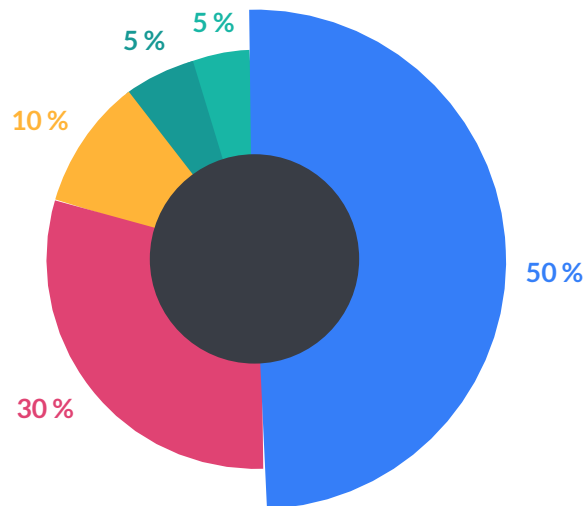


113,251,101

Team Token Grants that will be locked up in a two year vesting period with a 6 month cliff.

# Use of Funds

Funds raised during the Token Sale will be used solely for the research, development, and growth of the Kora Network. The Use of Funds will be monitored by the Board of Advisors, and we expect to use the following structure when operating our project.



## Research & Development

50 %

Research, development, and maintenance of the Kora Network and any software deployed in the Network. Will be distributed to various development groups and individuals.

## Network Growth

30 %

Onboarding users onto the Network, maintaining a positive user experience, compliance with various government regulations and other tasks needed to grow the Network. Will be distributed directly to Providers.

## Kora Accelerator

10 %

Primarily for seed funding of startups that build value-add applications on the Kora Network. Will be distributed directly to startups in exchange for equity.

## Social Impact Investment

5 %

Used for funding of social impact projects that help build out the Kora Ecosystem.

## Legal & Token Sale Marketing

5 %

To cover costs of forming the optimal legal structure for the Token Sale, for marketing the Token Sale, and the final Token Sale audit.

# Footnotes

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1. See, UFA2020 Overview: Universal Financial Access by 2020 (April 20, 2017) available at <http://www.worldbank.org/en/topic/financialinclusion/brief/achieving-universal-financial-access-by-2020>
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4. McKinsey Report 2016, Digital Finance for All: Powering Inclusive Growth in Emerging Economies
5. <http://documents.worldbank.org/curated/en/156111493234231522/pdf/114628-WP-68p-TheStateofIdentificationSystemsinAfricaASynthesisofIDDAssessments-PUBLIC.pdf>
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