HOUSE AFRICA

Whitepaper

Enhancing Africa real estate using blockchain

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Executive summary

Who We Are

1. INTRODUCTION

HouseAfrica is a decentralized real estate and rental ecosystem that provides international and local investors access to the African property market. We leverage blockchain technology to make buying, selling and rental process of properties less costly and more convenient and secure to investors. The transparent ecosystem with verified information on sellers, buyers, renters and landlords fosters trust between the parties.

As a value add we are also looking to build affordable houses reutilizing **shipping containers** to help combat the housing deficit on the continent .

2. THE PROBLEM

1. **Lack of transparency:** Due to lack of transparency, report from Global Real Estate Transparency Index 2018 by Jones Lang LaSalle (JLL) says accessing information on vacancy, tenant mix and pricing, tightly held by operators, combined with unconventional practices such as dynamic pricing remains a challenge making it more difficult to track overall market dynamics.

2. **Housing Deficit**: Africa is a diverse continent, with roughly 1.2bn people, 54 countries and thousands of languages. Unfortunately, many of its economies are facing challenges. One of the most common obstacles African markets face is a shortage of affordable quality housing. Kenya has a housing gap of approximately 2m homes, for example, while more than 12m people in Egypt live in informal buildings. This is hardly unique to the continent, but with high GDP expansion, juxtaposed against limited job creation and strong population growth. In fact, according to a 2017 UNICEF reports Africa's population will grow by 40% in the next 15 years. Rapid urbanization, its acuity in African economies will be more pronounced if actions are not taken to remedy the issue. Over the coming years, millions of Africans will need shelter – a roof over their heads. This huge population boom is the strongest underlying reason for the huge demand for accommodation and real estate properties across Africa. African markets will need to improve the fundamentals of their housing sectors. While the specific features of local real estate markets and regulatory regimes vary significantly across the continent, from Nigeria to Egypt to South Africa, chronic housing deficits, a lack of funding and an affordability gap are common throughout the region.

3. SOLUTIONS

i. **The Platform:** Our team of experts have built a 360 degree real estate management platform with a beautiful interface and simplicity of use to facilitate the real estate processes. The platform allows property listing, buying, selling, book for inspection, rental agreement, Purchase Agreement, request maintenance, manage properties and ultimately pay rent and utility bills.

ii. Building Affordable Houses: In other to help solving housing Deficits, we will build Affordable houses using Shipping containers building Models.

iii. Access to international Investors: The international investors will be able to access the Huge African real estate market through the HouseAfrica platform property portfolio, they will also be able to buy, sell and manage properties from anywhere in the world.

4. THE SERVICES

HouseAfrica offers a full range of services to facilitate the purchasing and selling of real estate including the following:

- Search Property
- List Property
- Book inspection
- Promote Property
- Buy and Sell Property
- Rental Payment
- E-signing rental and purchase agreements through smart contracts
- Submitting maintenance/repair requests
- Hire service providers(eg. technicians and plumbers)

MISSION *Our mission is simple, leverage blockchain technology as a transformative tool to redefine and simplify the real estate market in Africa. Also make sure rental and property purchase processes are faster, safer and transparent .*

KEYS TO SUCCESS

HouseAfrica's keys to long-term survivability and profitability are as follows:
- Establish and maintain close relationship with our accredited Agents who list and manage their properties on our Platform.
- Making sure properties listed on our platform are properly verified .
- Keeping close contact with clients and establishing a well-functioning long-term relationship with them to generate repeat business and obtain a top notch reputation.
- Establish a comprehensive service experience for our clients that includes consultation, appraisal, sale preparation, community information, moving consultation, etc.

OBJECTIVES

The three year goals for HouseAfrica are the following:
- Achieve break-even in 18months.

- Finalize and then expand our contract to global real estate property Tech company
- Establish minimum 95% customer satisfaction rate to establish long-term relationships with our clients.
- create word-of-mouth marketing.

5. BLOCKCHAIN AS NEW TECHNOLOGY FOR REAL ESTATE.

Blockchain is a broad term referring to technology that enables an encrypted electronic ledger to be updated by multiple parties working through some form of consensus system.

This means that each update of the ledger "state" is chronologically linked to the state that preceded it, creating a fixed and unchangeable record of all transactions that have occurred.

What is recorded on the ledger can vary from system to system. The best-known blockchain is the one that maintains the ledger for Bitcoin, the world's first cryptocurrency.

But there are many uses of the technology, in the same way that e-mail is just one use of the internet.

6. HOW THE REAL ESTATE INDUSTRY CAN BENEFIT FROM BLOCKCHAIN.

1. Cost saving and efficiency

Blockchain technology can be highly tailored to the needs of the group using it.

Platforms can be open to the public or they can be limited to a set of participants who are granted access to the ledger through a predefined protocol or the approval of an administrator.

Whichever approach is taken, a copy of the ledger (or at least a portion of it) is saved on every computer that is linked to the blockchain network and any data that is placed on the blockchain is validated by the participants through a specific consensus model that applies to the network.

The validation process will establish the trust required to transact remotely without the need for a thirdparty intermediary.

This means using a blockchain platform can result in lower cost, greater certainty, and a dramatic reduction in counterparty risk.

On top of that, it can aid faster execution and verification of information - and in the real estate context, reduce the need for various third parties, such as brokers, title companies, escrow companies or notaries public.

The use of this type of consensus mechanism can also greatly reduce the mount of fraud and mistakes that can arise through the use of manual documentation.

And, reassuringly, the requirement for agreement by consensus makes a hostile attack intended to corrupt the contents of the ledger almost impossible.

3

2. Smart contracts

A second area where Blockchain can make a diffrence is through the use of "smart contracts".

These are computer programs that allow for business agreements to be executed automatically when certain conditions are met. An example would be a lease or utility pursuant to which one party pays another party an agreed amount depending on certain variables.

Such payment could be automated in much the same way that, with a standing instruction, your bank pays your utility bill, no matter what amount it may be in a given month.

Smart contracts would reduce the friction of doing the transaction and make real estate more transparent and liquid. In an environment where even the most basic of transactions have become costly, time-consuming and stressful - and often involve numerous low-value-add intermediaries - commercial real estate seems like a perfect place to take advantage of the benefits of blockchain technology.

3. Trust and transparency

By maintaining an immutable record of property ownership, encumbrance and conveyance, blockchain can provide a certainty of information that allows for a greater level of trust and transparency.

It can allow each piece of property to have its own digital address where all information relating to the property may be stored.

This would include financial information, leases, taxes, bills, liens, easements, building performance, physical characteristics and the transaction history relating to the property, potentially eliminating the need for expensive in-depth title searches.

Crucially, all property level information can be encrypted in such a way that only those with permission by the property owner (or agent lender, in the case of a mortgage loan transfer) can be allowed access.

Looking to the future, a blockchain-based distributed ledger could provide the foundation for a more universal system across multiple geographic locations.

This could offer a standard method of record-keeping and an efficient, possibly nationwide, system of collecting and maintaining property information and documentation.

Prevents Double Booking: All transactions that occur on the on a blockchain platform will be cryptographically signed and auditable. The use of timestamps with consensus mechanism on the blockchain has the ability to prevent double booking/selling of the same property unit, which is a common problem when a property is being listed by different brokers.

7. AFRICAN GOVERNMENT AND BLOCKCHAIN

Due to blockchain's new and innovative nature, we recognizes the existence of regulatory and infrastructure limitations in the current technology as applicable to real estate transactions and is in the process of building a multi-stage solution to be gradually phased in over time.
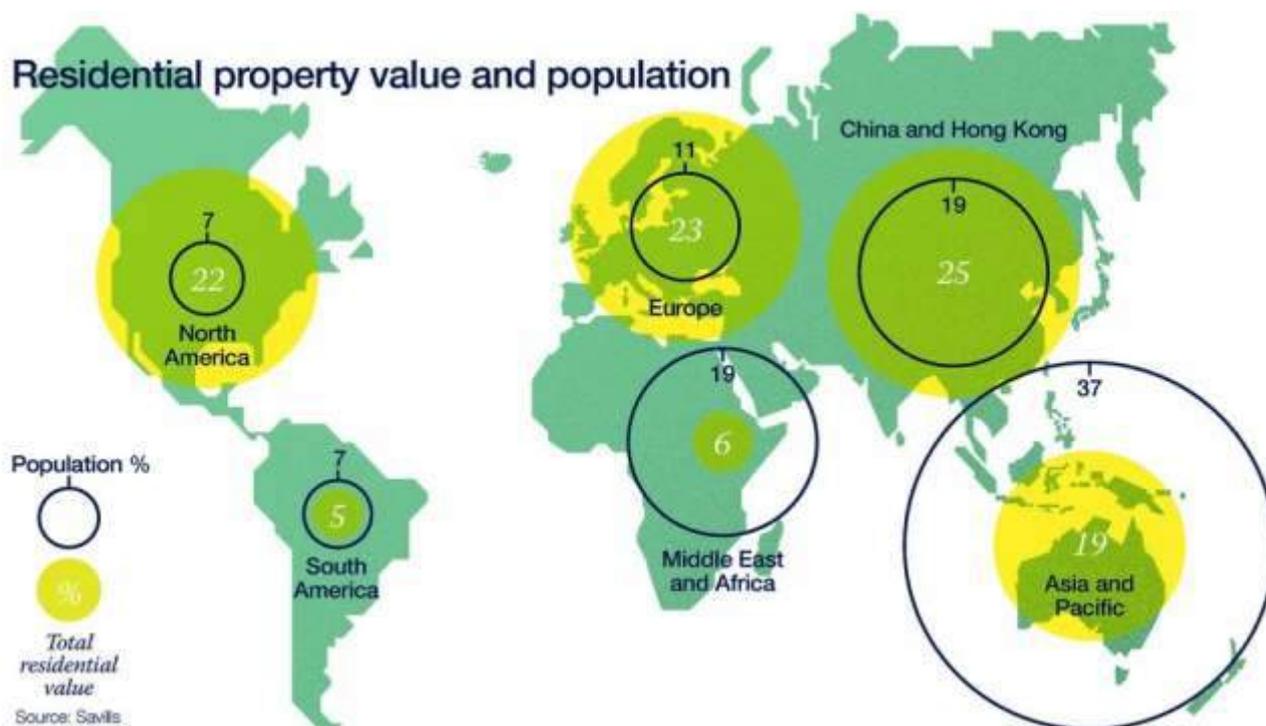
8. Target Market

a. The market

PropertyPro.ng report shows that Real Estate is the 5th biggest contributor to the GDP of Africa's economy. The Nigerian real estate market has grown since the emergence of online real estate sites in the late 2000s. The market has grown more in states experiencing a high rate of urbanization. With the country's 4.3% increase in yearly urbanization.

Researches also cited Kenya's multi-billion real estate industry continued progress held down by improved transaction process and greater data availability as the reason for the improved ratings while Nigeria's third-party providers enhanced market coverage and valuation quality which saw the biggest economy in Africa become the top regional improver.

itSavill shown on African residential real estate has a total worth of 10trillion USD which is 6% of the 168trillion USD worth of the Global residential real estate. This same report shows that Africa has the highest Real Estate potentials.

Residential property value and population

Population %

Total residential value

Source: Savills

North America — 22 / 7

South America — 5 / 7

Europe — 23 / 11

China and Hong Kong — 25 / 19

Middle East and Africa — 6 / 19

Asia and Pacific — 19 / 37

Real Estate is the 5th biggest contributor to the GDP of Africa's largest economy

Residential real estate in Africa is worth 10trillion USD
~ 6% of global residential real estate market.

We target 10% of Africa real estate market

b. Market target

Our business focuses on three main groups of customers.

Agencies: These consist of established real agents, Developers and registered agents. These will be majority of our market. These agents have embraced technology and are constantly looking for new ways to increase their profit margin. Nigerian and Kenya has over 350,000 of registered agents.

LandLords: These are property owners who do not want use services of the agents. they can list and manage their properties on HouseAfrica Platform.

Tenants: They look for Properties to rent

Buyers: These market buys properties from the listed agent. like we said earlier, currently our MVP will only allow rental processes. buyers can contact the landlords and agencies transact directly with them with us not responsible of what happens afterwards.

9. OUR ADVANTAGES

1. Cost saving and efficiency
2. Security.
3. Trust and transparency.
4. Closing Deals faster.
5. Smart contract

10. The Platform

1. Intro

HouseAfrica platform will be launched in two main phases. S**emi Decentralized Application (SDA) and Full Decentralized Application (FDA)**

SDA Platform which includes a centralized interface and decentralized smart contracts intends to make the existing real estate market processes streamlined by reducing the need to rely on the multiple intermediaries currently involved in the real estate transactions. While aspects of the process will be partly decentralized (Rental Agreement, Payments etc) it will primarily make the current real estate transfer process easier to manage and more transparent.

FDA will be a transition which will tends to develop a fully decentralized system with entity contracts, Registry Contracts, API libraries for new startups, Decentralized mortgage system(this will be a partnership) etc.
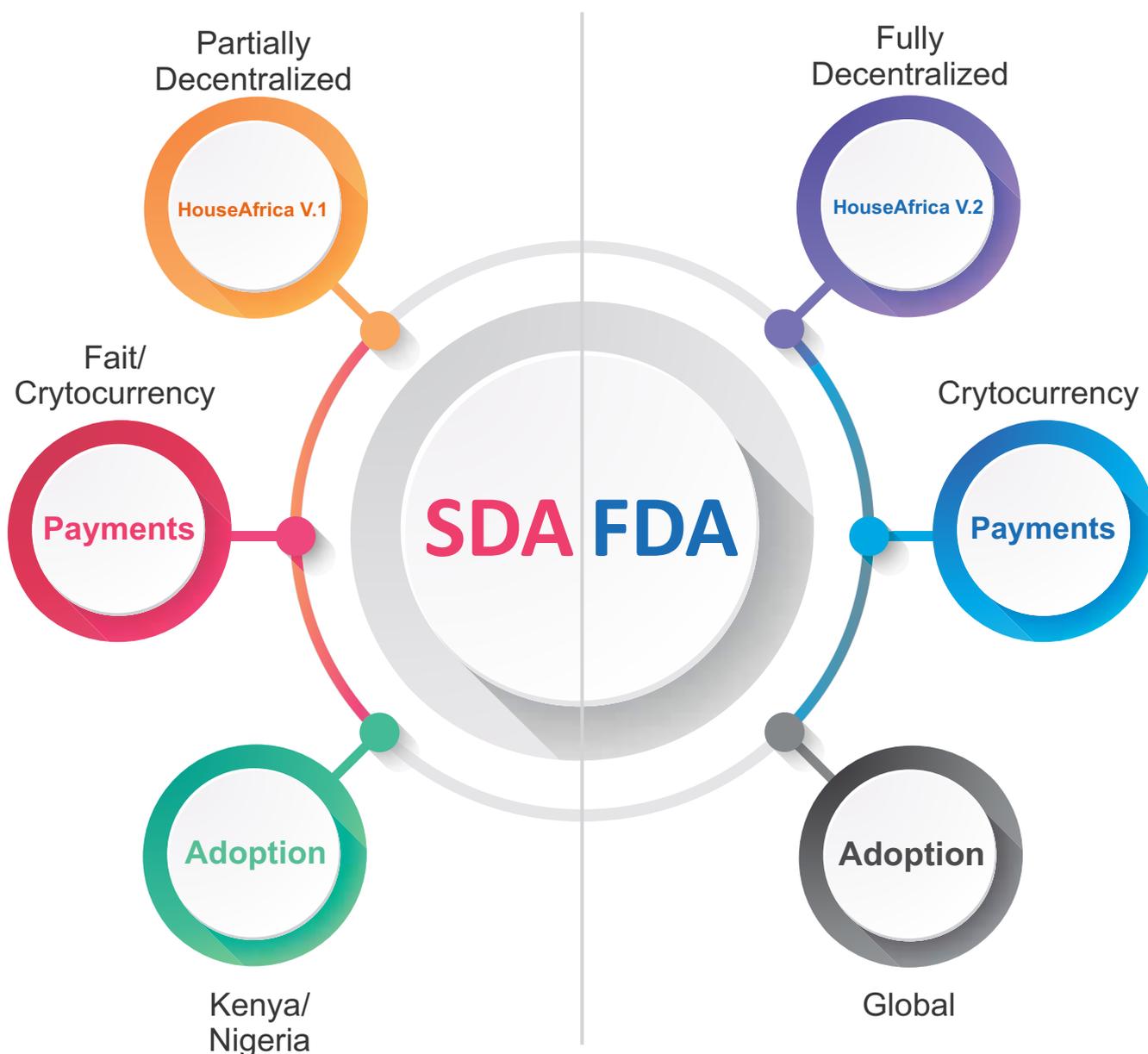
2. What Is HAF?

HAF tokens are built on the Waves token Asset standard, which gives HAF the ability to be transacted on the Waves blockchain. HAF is primarily designed to be a utility token to access specialized features on the HouseAfrica platform.

The following are some essential utilities for the HAF token:
For User,

- Get global and regional real estate market report.
- Access more information about a property (Electricity Bill Status, Water Bill Status)
- Escrow Fee Payment
- Household Utility Bill Payments (Electricity bills, Water bills, Cable TV bills

For Agencies, Landlords, Property Developers, and Estate Agents
- Ability to list properties, rentals, vacation homes (short rent) on HouseAfrica Platform. .
- View Leads
- Add Staff/Agents
- Promote properties
- Create Short time Deals

There will be more utilization for the tokens as the HouseAfrica platform grows and expands. The increase in property developer listing and buyer transactions would require an ever-increasing demand for HAF.

11. General Competitor Comparisons

The HouseAfrica business model is compared with other real estate based projects.

|	PropertyPro	HOUSE AFRICA	Others(jiji, OLX etc)
Listing properties	✔	✔	✔
Promote properties	✔	✔	✔
Book inspection	✔	✔	✖
Verify properties	✖	✔	✖
KYC/AML	✔	✔	✔
e-sign	✖	✔	✖
Pay rent	✖	✔	✖
pay utility bills	✖	✔	✖
google ads	✔	✖	✔
Check power debt	✖	✔	✖
Maintance request	✖	✔	✖

12. PRODUCT FEATURES

- **Tenant/User:** A registered user of the platform. Each User profile is stored as an entity and an identity contract stored on Blockchain.
- **Landlord:** A registered property owner .
- **Agency:** A registered real estate Agent.
- **Property ID:** The physical property listed by the landlord or Agency and stored in the Blockchain network as a smart contract;
- **Credibility:** A score points used by landlords and Agencies to choose the best user to rent or sell property to.
- **Rating:** an open field of landlords and Agencies entities use to describe their qualities.
- **Dispute:** - If Agreements are not met Users can create dispute.
- **Fees**: the platform operator's reward.
- **User Deposit:** A sum in tokens, equivalent to a commission, which is locked in a rental/purchase processes until it is completed otherwise refunded if cancelled
- **Agreement:** E-Tenancy/Purchase Agreement that will be signed on the platform and saved on the blockchain.
- **Escrow:** Smart contracts that holds deposit from tenants and buyers till transaction processes is completed.
- **Wallet**: HAF wallet, BTC and ETH
- **Rental/purchase Application:** Tenants/users and buyers can Apply for reservation of a particular property. This initiates the rental/purchase process.
- **Book inspection:** Tenants and buyers can book for inspection on a property.
- **Utility Payments:** Users can pay bills from their wallets: Eg. Electricity, Water, Cable TV and other recurring Bills.
- **Promote Property:** The algorithm is designed to present the property on the landing page. Making it easy for interested users to see.

- **Check property status:** Users can check the status of property like year of built, electricity bill and water status.

13. The HoueAfrica Environment
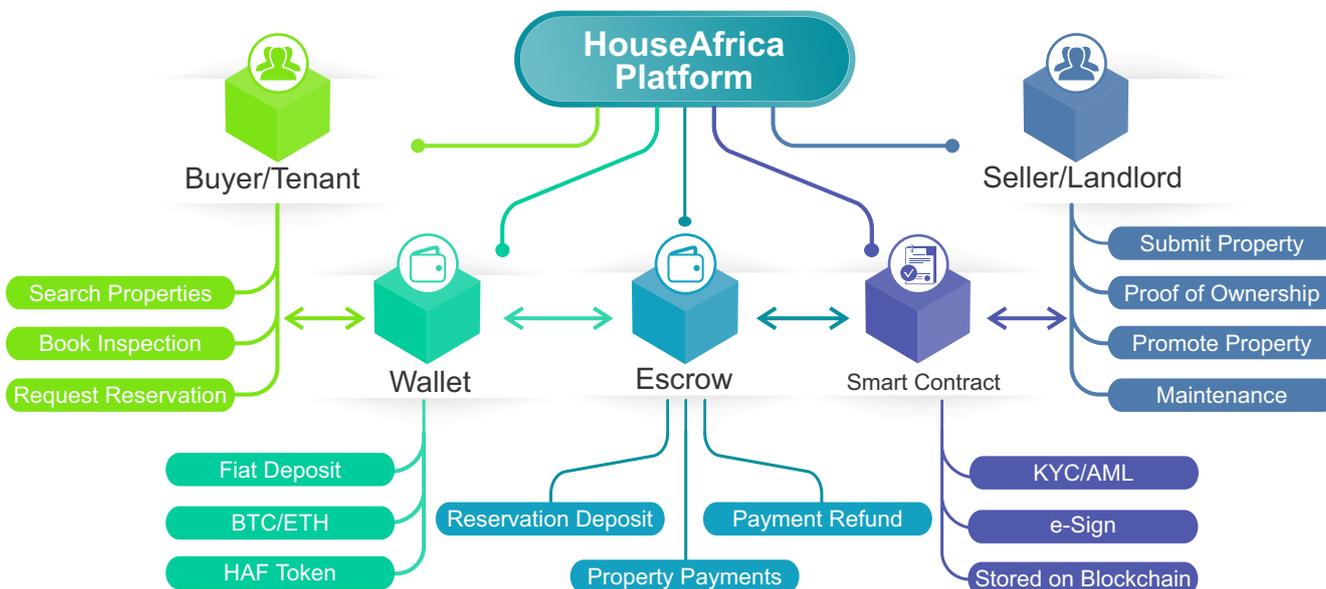
1. Users (Tenants, Landlords, Agencies)
The Users in the HouseAfrica Protocol are categories into three:
- The Tenants/buyers
- The Landlords
- Agencies

2. The Tenants/Buyers: These are users in need of properties for rent and for purchase. They can do the following

- Search properties.

- Book for inspection.
- View status of the property.
- Apply for rent or purchase.
- Pay rent.
- Create Dispute
- Buy property.
- Pay utility bills.

3. The Landlords: These users can also be referred as property owners. They can
- List their property
- Create deals
- Promote their property
- Apply property rise-up

- Approve rental possesses
- Collect rental/purchase payments
- View Tenant /buyers leads
- View reports

4. Agencies: These are real estate agents, developers, estate managers
They can:
- Add their Staff/Agent to their account to enhance team work. these staff/agents acts as property manager property they listed
- List their property
- Create deals
- Promote their property
- Apply property rise-up
- Approve rental possesses
- Collect rental/purchase payments
- View Tenant/buyers leads
- View reports

5. Verification Process
There are there types of verification process on the platform
1. **User verification:** This has connection with all profiles (Tenants Landlord and Agents) will be done using outsource service like Civic. Nigerians will use BVN number
2. **Agency Verification:** Agencies will have additional verification process which is incorporation cert and tax clearance (12months)
3. **Landlords Verification:** Uploads proof of ownership

6. Credibility Score
This feature will help Landlord and Agencies to make decisions on who to rent house to or sell property to. Credibility score is generated from the verification process from Email Confirmation, phone number to KYC/AML verification. This has number of scores attached to it.

Email confirmation 20points
Phone number 20points
KYC 60points

When users (tenant/buyers) applies for a property, the landlord and Agency sees the the credibility score of those users and make faster decisions whom to start renting/purchase process with.

14. Escrow

HouseAfrica escrow reduces the risk of fraud by acting as a trusted third-party that collects, holds and only disburses funds when both Buyers and Sellers are satisfied.

Our escrow ensures that all buyers and sellers are protected equally and their disputes dealt with the utmost concern. We verify the funds sent by the buyer and keeps them in our secure trust escrow account for the seller.

1. How does Escrow Work?

a. **Buyer and Seller agree to terms** - Either the Buyer or Seller begins a transaction.

b. **Buyer pays into Escrow** - The Buyer submits a payment by approved payment method to our secure Escrow Account, the Seller is notified that funds have been secured 'In Escrow'.

c. **Seller/Landlord give Buyer/Tenant access to the property** - Upon payment verification, the Seller/Landlord is notified to send the keys to the tenant/buy to access property.

d. **Buyer/Tenant accepts keys** - The Buyer/Tenant access and accept the property.

e. **HouseAfrica pays the Seller/Landlord** - Escrow releases funds to the Seller/Landlords from the Escrow Account.

Transaction is complete - safely and securely!

15. E-Tenancy Agreement

E-tenancy agreement signed quickly & securely online.

1. E-tenancy agreement template
2. Editable, add your own clauses
3. Download and print PDF
4. All parties can sign online
5. Legally binding, bank-grade security
6. Any device including tablet and mobile

16. Team

NAKIA J. WHITE
CEO

Nakia is experienced in the United States and Eastern Africa businesses. Her background in real estate with Century 21 managing mid-to high end properties and company budget management experience to ensure the continued growth and success of HouseAfrica.

IKOKPU NDIFREKE
CTO

Ikokpu is a co-owner of the leading digital currency and cryptocurrency exchange Bitpaya, He demonstrated deep understanding of the interrelation between these emerging technologies and the transformative implications for the African markets.
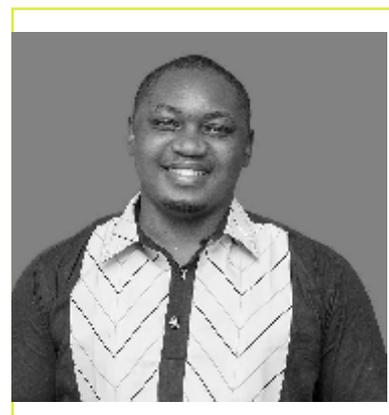
NNAMDI UBA
Lead Blockchain Developer

Previously, He distinguished himself as a leader in the field developing mobile payment processing systems and telecoms apps, gaining expertise in numerous software packages and operating systems. Nnamdi is co-founder and lead blockchain developer of HouseAfrica.

+ 6 other resourceful team members

Advisors

Dr. Bitange Ndemo
Chairman, Blockchain Taskforce, Kenya

Chairman Blockchain Taskforce, Kenya Bitange Ndemo is regarded as one of the key people who oversaw the transformation in the Kenyan ICT Sector while the Permanent Secretary. Presently, Dr. Ndemo is the Chair of the Blockchain task force where he is at the forefront of creating Sandbox legislation.
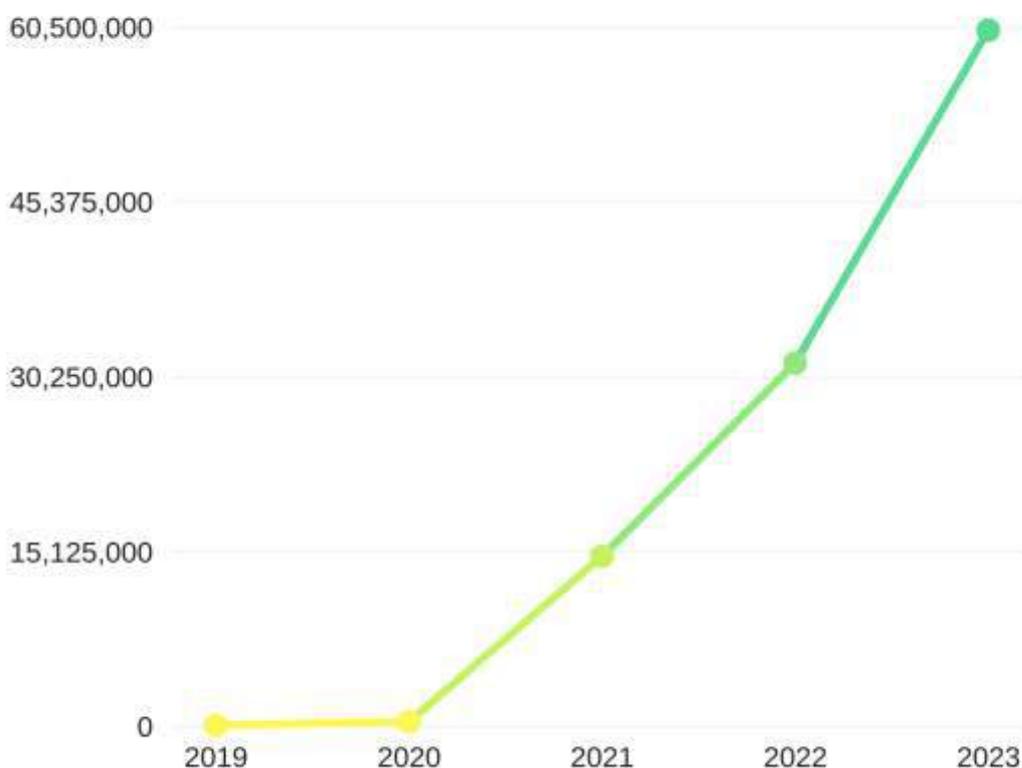
Chuta Chimezie
Regional Director, Paxful Inc.

Chuta is the Regional director Paxful Inc with high bitcoin volume in the region. He has help to organize Nigeria's biggest Blockchain and Cryptocurrency events.Organize Drupal GlobalTraining Day events, DrupalCamps and Meet-Ups in Nigeria and Africa.

17. Financial

Revenue Forecast Chart

18. TOKEN STRUCTURE

MAXIMUM TOKEN SUPPLY	**2,500,000,000 HAF**
AVAILABLE IN PRE-SALE (25% BONUS)	**500,000,000 HAF**
AVAILABLE IN PUBLIC TOKEN SALES (20%BONUS)	**1,500,000,000 HAF**
TEAM, ADVISERS AND RESERVE	**500,000,000 HAF**
TOKEN PRICE	**0.025 USD**

Bounty Program 15%

Team/Reserve 17%

Advisors 3%

Publicity 5%

Public Token 60%
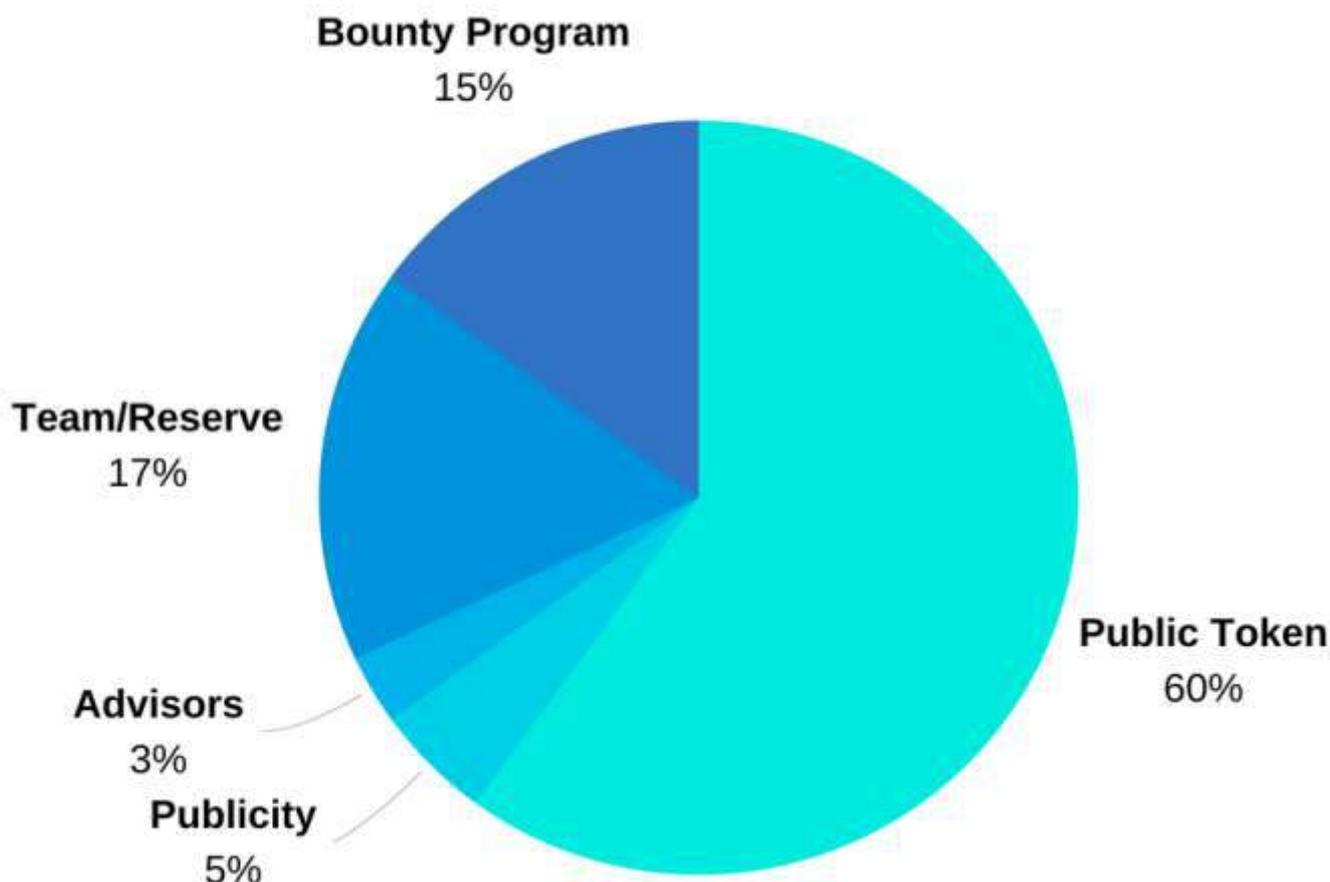
The amount of HAF allocated for advisors, reserves and team will be equivalent to 20% of the amount of HAF tokens issued (Tokens sold plus bonus offered).

HouseAfrica Reserve may not be intentionally distributed to employees and is the sole property of HouseAfrica. These tokens will be locked for 2years.

ACCEPTED CRYPTO: **WAVE | ETHEREUM | BITCOIN**

All funds received will held in multi-signature wallets.

Unsold HAF Tokens

Any unsold HAF Tokens will be burned

The issuing of tokens

HAF Tokens will be issued within 2 weeks after ICO.

PRIVATE SALE BONUS

Contributors in private sales will receive special bonuses for contributions not less than $10,000 and above. Contact our sales team for details at ico@houseafrica.io

PRESALE BONUS

Contributions from $100 and above will receive +25% Bonus.

PUBLIC TOKEN SALE BONUS

We will open the public token sale with a 20% bonus, which will decrease by 5% each week until the sale ends or the max cap has been reached

TOKEN IMPLICATIONS

HouseAfrica Tokens offer limited real rights as contained in the HAF Token Sale terms and conditions. The tokens represent a set number among the maximum total of 250 million tokens. These tokens are not refundable. No promise of future performance or value is or will be made in respect to HAF, including no promise of inherent value, no promise of continuing payments, and no guarantee that the HAF tokens will hold any particular value.

HOW WILL THE FUNDS RAISED BE USED?
FUNDING GOAL: $30 MILLION

All the funds raised during the Token Sale will be used in driving HouseAfrica along our road map so we can bring our vision faster to you. Each product milestone requires additional development, team expansions, marketing efforts and legal oversight. The following chart breaks down how the funds raised will be divided between the core functions for each milestone we raise funding for.

Bounty Program 3%
Legal 5%
IT Dev. 10%
Operations 12%
Partnerships 5%
Marketing 15%
Estate Dev. 50%
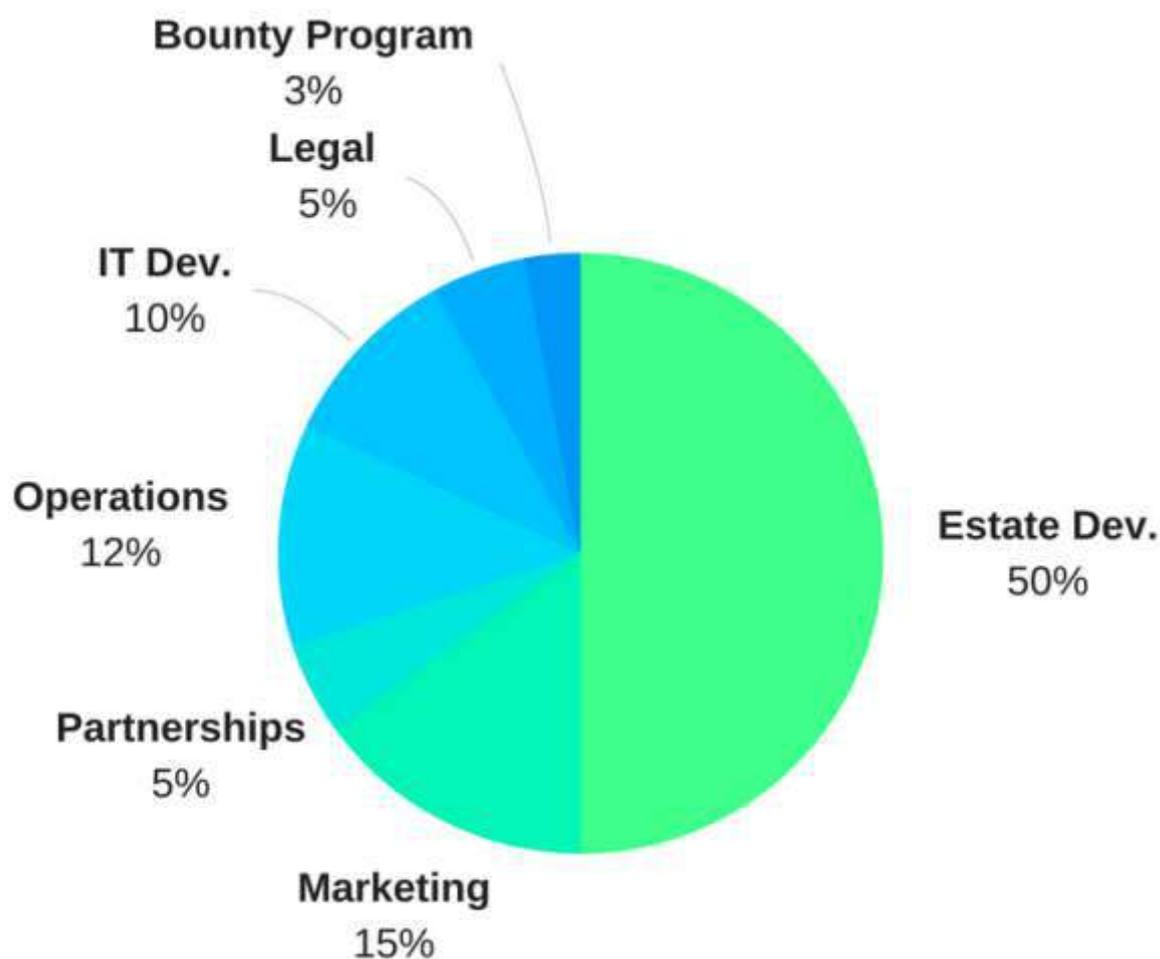
OUR COMMITMENT TO OUR CONTRIBUTORS

With your contributions to HouseAfrica, we'll be on track to deliver against the milestones on our road map.

We have set aggressive but achievable milestones to ensure that HouseAfrica is always evolving.

KYC/AML

Contributor will receive HAF Token when his/her KYC/AML verication is completed

COUNTRY

Kenya

ALL PURCHASES OF HAF ARE NON-REFUNDABLE

ALL PURCHASES OF HAF TOKEN ARE FINAL. PURCHASES OF HAF ARE NON-REFUNDABLE. BY PURCHASING HAF, THE PURCHASER ACKNOWLEDGES THAT HOUSEAFRICA IS NOT REQUIRED TO PROVIDE A REFUND FOR ANY REASON, AND THAT THE PURCHASER WILL NOT RECEIVE MONEY OR OTHER COMPENSATION FOR ANY HAF THAT IS NOT USED OR REMAINS UNUSED.

DISCLAIMER OF WARRANTIES

THE PURCHASER EXPRESSLY AGREES THAT THE PURCHASER IS PURCHASING HAF AT THE PURCHASER'S SOLE RISK AND THAT HAF IS PROVIDED ON AN "AS IS" BASIS WITHOUT WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF TITLE OR IMPLIED WARRANTIES, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE (EXCEPT ONLY TO THE EXTENT PROHIBITED UNDER APPLICABLE LAW WITH ANY LEGALLY REQUIRED WARRANTY PERIOD TO THE SHORTER OF THIRTY DAYS FROM FIRST USE OR THE MINIMUM PERIOD REQUIRED). WITHOUT LIMITING THE FOREGOING, NONE HOUSEAFRICA PARTIES WARRANT THAT THE PROCESS FOR PURCHASING HAF WILL BE UNINTERRUPTED OR ERROR-FREE

TIMELINE

2017
- Q4 — Design concept Technical Spec.
- Q1 — Company Launch

2018
- Q2 — Prototype Development
- Q4 — Web, HAF 0.2 beta Version
- Pilot Test
- Q4 — HouseAfrica v.1 SDA

2019
- Q1 — Go Live
- Q2 — Initiate partnership with Government
- Q2 — HAF Token Wallet APP
- Q3 — Mobile APP/ Utility payment Integrated
- Q4 — API Libraries
- Q4 — HouseAfrica v.2 FDA (fully functional)

2020
- Q1 — Building Project Kenya
- Q3 — Web App Ver. 1.2
- Q4 — Supply chain System for constructions fully implemented

2021
- Q2 — International Expansion