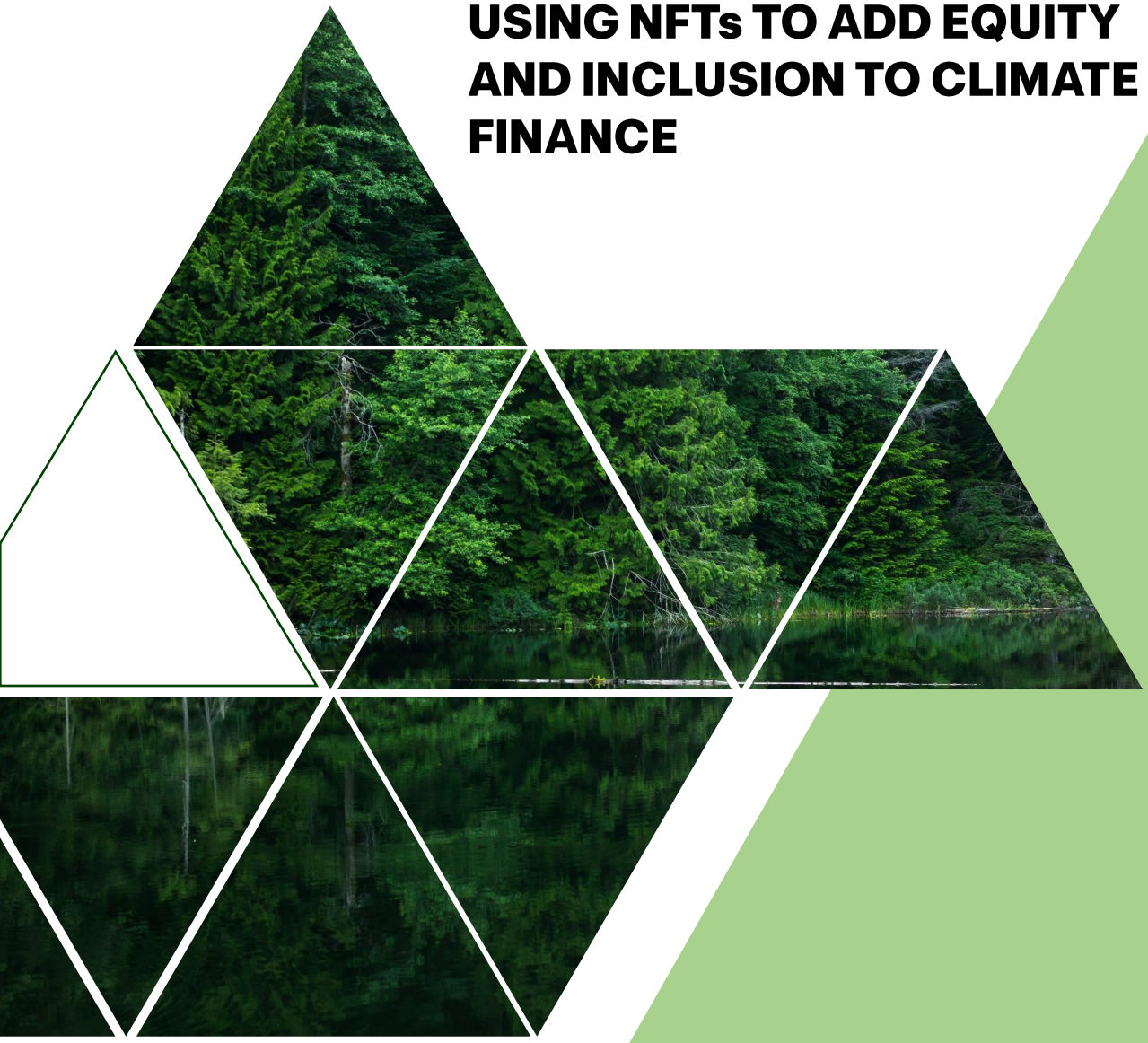
Carbon Collectible® NFTs

WHITE PAPER

USING NFTs TO ADD EQUITY AND INCLUSION TO CLIMATE FINANCE



A Web3-Native Forward Carbon Offset

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Disclaimer

This white paper is a high level summary of the Carbon Collectible NFTs program and its broader context. It includes forward-looking statements about the project's plans based on assumptions that the project team believe are reasonable. There can be no assurance that these forward-looking statements will prove to be accurate, since actual results and future events could differ materially from those anticipated by such statements. The reader should conduct their own research and not rely on the contents herein to make any decisions. In addition, the reader should not treat any information in this document as financial, legal or any other form of professional advice. Carbon Collectible NFTs represent the sale of virtual rights to plots of forestry. This does not include any rights to the land or trees. This is not an investment contract. In addition, the reader is encouraged to consider participating in the program as an unrelated supporter, independent contractor or potential employee. The project team does not anticipate, expect or encourage the reader to invest any time or resources into this project for any other type of gain.

LEVERAGING THE BLOCKCHAIN TO DISRUPT THE TRADITIONAL CARBON OFFSET INDUSTRY

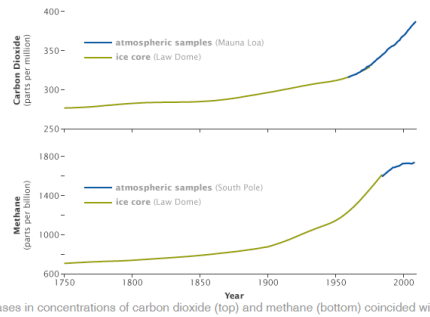
A Web3 Forward Carbon Offset

1.0 Introduction

Burning fossil fuels and deforestation are the main causes of global warming.

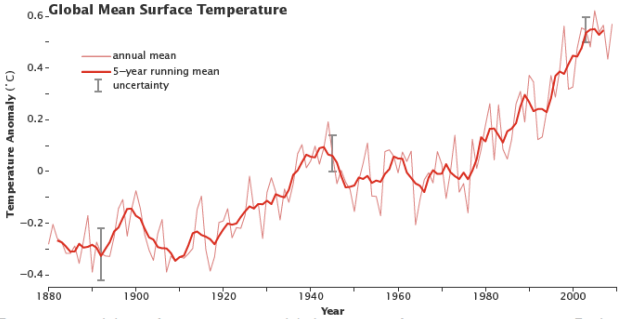
According to NASA, the level of Greenhouse Gases ("GHGs") in Earth's atmosphere has increased significantly since the start of the industrial revolution. In comparison, the Earth's average surface temperature has also increased significantly over the same timeframe. There appears to be a causal co-relationship. Moreover, NASA states that burning fossil fuels and deforestation are the main causes of global warming.

Increase in GHGs in the atmosphere



Increases in concentrations of carbon dioxide (top) and methane (bottom) coincided with the start of the Industrial Revolution in about 1750. Measurements from Antarctic ice cores (green lines) combined with direct atmospheric measurements (blue lines) show the increase of both gases over time. (NASA graphs by Robert Simmon, based on data from the NOAA Paleoclimatology and Earth System Research Laboratory.)

Increase in Temperature



Despite ups and downs from year to year, global average surface temperature is rising. By the beginning of the 21st century, Earth's temperature was roughly 0.5 degrees Celsius above the long-term (1951–1980) average. (NASA figure adapted from Goddard Institute for Space Studies Surface Temperature Analysis.)

According to the World Resources Institute, "the new data show that forests that have sprouted up in the past 19 years represent less than 5% of the current global forest carbon sink …. although important to give these young forests the chance to grow … protecting primary and mature secondary forests today is most important for curbing climate change."

To prevent deforestation, we must increase the value of mature trees. In turn, this will incentivize communities to plant new trees.

2.0 Problem Statement

Traditional carbon offsets are part of the problem not the whole solution:

Many jurisdictions, including the EU and California, have a mandatory carbon cap and trade program. They place a cap on the amount of green house gas equivalent that polluters can emit into the atmosphere each year. If a polluter exceeds their mandated cap, they can pay a fine or buy carbon offsets from an entity that removes carbon dioxide from the atmosphere or avoids the emission of carbon dioxide. Regulated polluters can only buy these "compliance" carbon offsets from a regulated exchange.

Conversely, some organizations want to be good corporate citizens so they buy "voluntary" carbon offsets to become carbon neutral. Anyone can buy or sell voluntary carbon offsets.

Typically, both compliance and voluntary buyers expect traditional carbon offsets to comply with one of a few well known certification standards. However, certification can take 3 to 5 years and cost $700,000 or more. In addition, these certification standards regard carbon sequestration by mature forests as "business-as-usual" rather than "additional". Consequently, they exclude many mature forests in low-income communities from selling traditional carbon offsets. Moreover, even if these mature forests were included, their low-income communities couldn't afford the high certification costs.

Traditional carbon offsets are designed to incentivize new carbon sequestration rather than reward existing carbon sequestration. Also, they represent historical carbon that was sequestered in the past. Historical carbon is yesterday's fight against global warming.

To win today's fight against global warming, we must increase the supply of climate projects and also increase the demand for project outcomes. To increase supply, we need to reduce certification costs toward $0 and reduce the time-to-revenue from 5 years to 5 months. To increase demand, the financial structure of carbon offsets must evolve to satisfy typical ROI expectations for project finance.

Climate finance should focus on increasing the value of current and future carbon sequestration, not only focus on stockpiling historical carbon.

3.0 Our Solution

Our Web3 carbon offsets add equity and inclusion to climate finance.

Our solution is designed to add equity and inclusion to climate finance. Our SatNav app automates carbon measurement and reporting. It reduces carbon certification costs from $700k toward $0 and reduces time-to-revenue from 3 to 5 years to 3 to 5 months. This provides equal access to climate finance for low-income forest communities who are most vulnerable to illegal deforestation. Equity and inclusion increases supply of climate projects.

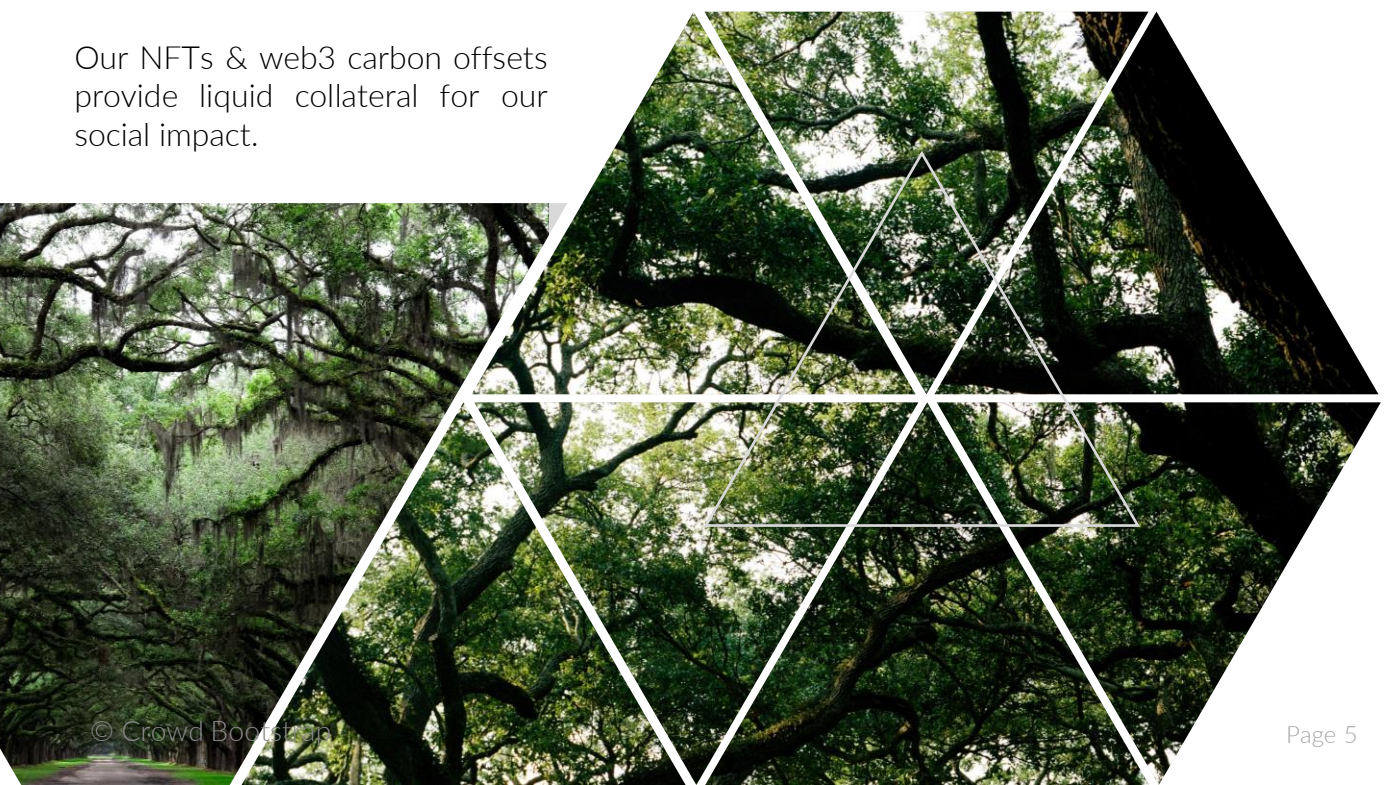
We use our SatNav app to increase supply of climate projects and our ReFi Social Innovation Studio to increase demand for climate projects. Our SatNav app:

1) Sub-divides our forest into 1–hectare (2.47 acres) plots & assigns 1 NFT to each plot. This conveys, to each NFT, 5 web3 carbon offsets per year plus gaming & metaverse rights.
2) Interfaces with a 3rd party oracle that uses satellite imagery, machine learning & artificial intelligence to measure the carbon sequestration rate for each plot of land automatically.
3) Geolocates rare sites in our forest, such as waterfalls and caves. This provides physical rarity to each NFT that is assigned to a plot of land that is close to a rare site of interest.
4) Enables NFT holders to use satellite navigation to zoom-in and view the tree cover on their assigned plot of forest land. This enhances provenance and transparency.

We invest 65% of our NFT revenue into the local community – 15% for forest management and 50% through our ReFi Social Innovation Studio, which:
5) Solicits problems and solutions from the local forest community.
6) Motivates our crypto community to leverage web3 innovations to reimagine more sustainable and profitable solutions to local social challenges.

The outcome is funding and oversight for a wide range of social impact projects that appeal to a broader range of impact investors. This increases demand for climate projects.

Our NFTs & web3 carbon offsets provide liquid collateral for our social impact.



4.0 Our Forest

We have decomposed our forest into 1-hectare blocks, each of which is assigned to one NFT.

Some forests in Ghana are owned by the government. Some are owned by private land owners.

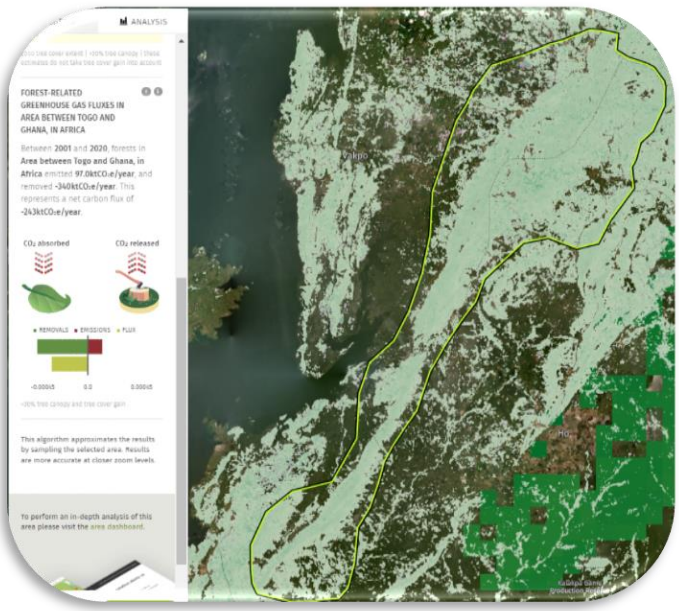
The Avatime Forest is located in the Volta Region of Ghana. This forest is owned by a community of low-income, subsistence farmers. These land owners combine their holdings into communal property that is governed by the Traditional Council which is led by the Paramount Chief. The Paramount Chief of Avatime, the Forestry Commission, the Department of Agriculture and the Ho Technical University have all contributed to this project. The Forestry Commission has confirmed that the Avatime community is permitted to monetize its carbon sequestration.

The map on the right illustrates the boundary of the Avatime forest. The panel on the left of the map is the output from the 3rd party oracle that summarizes the carbon emission, carbon removal and net carbon sequestration for the Avatime forest.

We have decomposed the Avatime forest into 66,000 1–hectare plots. For each plot, we have the longitude, latitude, number of Web3 carbon offsets and a list of rare sites that are close by. These rare sites provide physical rarity for a close by hectare plot and therefore physical rarity for the NFT that is assigned to that hectare plot.

Our SatNav App enables an NFT owner to input the reference ID of their NFT then use satellite navigation to zoom in and inspect the tree cover on their assigned hectare. This provides enhanced provenance and transparency.

Satellite Measurement of Carbon Sequestration



Assignment of a Hectare Block to an NFT

	Longi-tude	Lati-tude	Digital Offsets	Rare Sites
Hectare 1	6.51436	0.25176	6	Pond
Hectare 2	6.51615	0.25176	6	Pond
Hectare 3	6.90512	0.39015	6	Odum
Hectare 4	6.81619	0.40372	6	Apple
Hectare 5	6.82158	0.40372	10	None
Hectare 6	6.88536	0.42362	9	Mountain
Hectare 7	6.81709	0.42724	7	Cedar

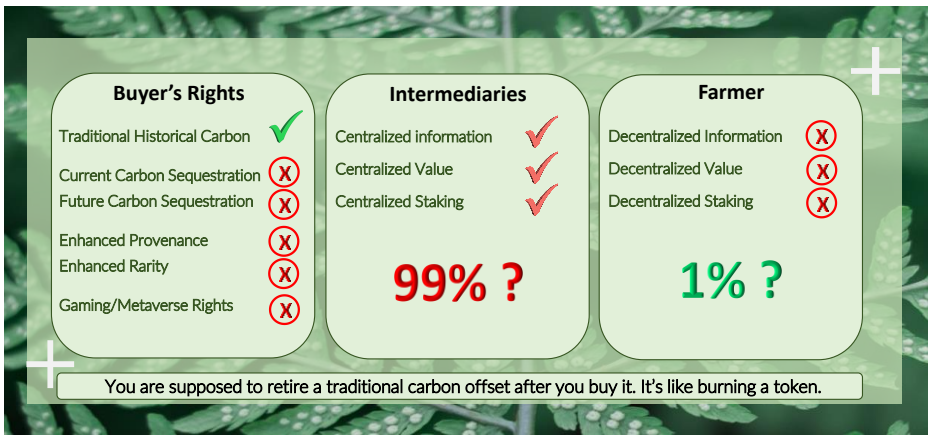
5.0 Our Web3 Approach

Our Web3 approach decentralizes information, value and staking to benefit the land owner.

Traditional carbon offsets are a Web 1.0 solution. Information, value and staking are all centralized in intermediaries.

In addition, traditional carbon offsets represent historical carbon that represents yesterday's fight against global warming.

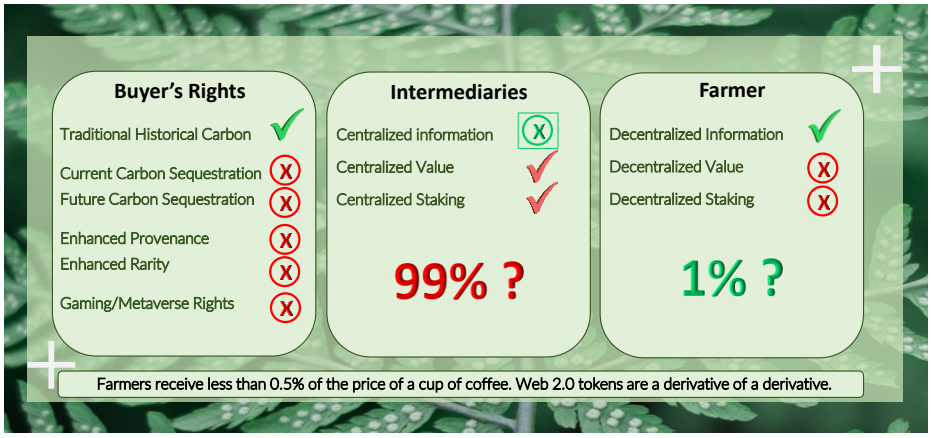
Web 1.0 - TRADITIONAL CARBON OFFSETS



Tokenization of traditional carbon offsets is a Web 2.0 solution. Maybe information is decentralized but value and staking are centralized in intermediaries.

In a Web 2.0 world, the farmer receives 0.5% of the price of a cup of coffee.

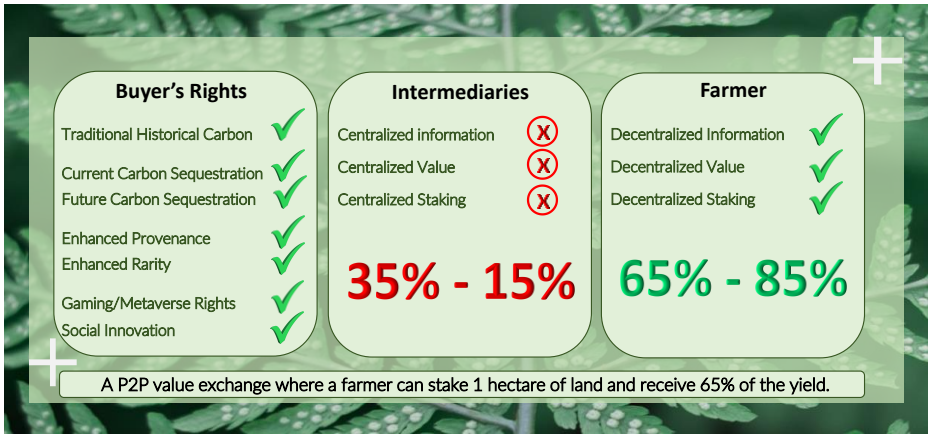
Web 2.0 – TOKENIZED TRADITIONAL CARBON OFFSETS



Web3 carbon offsets also include historical carbon, which is not valued in our price. Instead, Web3 carbon offsets represent, and value, current and future carbon sequestration.

In addition, information, value and staking are all decentralized. Moreover, the land owners accrue 65% of the proceeds from the NFT sale.

Web 3.0 – DIGITAL CARBON OFFSETS



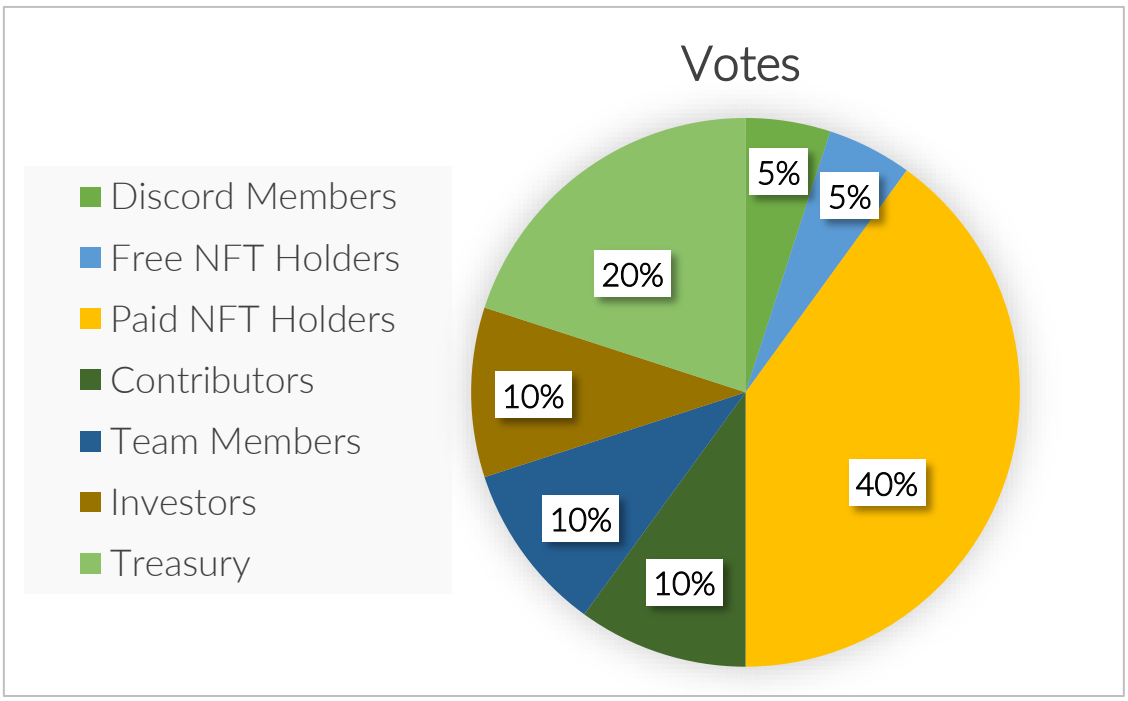
6.0 Votanomics

We will ask different members of the ccNFTs community to vote on selected choices.

We allow members of our community to vote to influence certain decisions. In such cases, voting rights may be distributed as shown in the table below.

One example of a vote may be whether to convert into a DAO. Another example may be how to prioritize those projects seeking funding from the social innovation studio. Yet another example of a vote may be whether this project for the Avatime forest should also seek traditional carbon certification. For this decision, the community may decide to use web3 certification as a means to generate early revenues in order to fund a subsequent project to qualify for certification from a traditional carbon registry.

1	Discord Members	5%
2	Free NFT Holders	5%
3	Paid NFT Holders	40%
4	Contributors	10%
5	Team Members	10%
6	Investors	10%
7	Treasury	20%



7.0 Roadmap

We plan to lunch a social innovation studio to transform disenfranchised youth into crypto entrepreneurs.

1	**Q1 – Launched the Promotional NFT on January, 10 2022**
2	**Q2 – Private sale of the Forest Rights NFT**
3	**Q3 – Public sale of the Forest Rights NFT**
4	**Q4 – Launch the Social Innovation Studio**

On January 10, 2022, we launched our free promotional NFT on the Polygon blockchain. This free NFT does not convey any forestry rights. In Q2 2022, we plan to launch our NFT that conveys virtual rights to 1 hectare of mature forest land.

In Q4 2022, we plan to launch our social innovation studio. This will fund innovative projects and companies that are sustainable and profitable. For example, the Ghanaian Department of Agriculture has suggested a number of alternative livelihoods that can monetize the Avatime forest in a sustainable and profitable way. This includes eco-tourism, bee keeping, mushroom farming and snail raring. In addition, a local farming coop has devised an innovative method to transform the seasonality of local “brown rice” delicacy from one harvest per year to two harvests per year.

Our crypto community has proposed a number of Web3 innovations that are designed to solve local challenges, such as an automated micro lending platform that gives female market traders equal access to low-cost micro loans. Today, these market traders are exploited by loan sharks who charge interest rates of 5% to 10% per month.

8.0 Team

Selected team members.

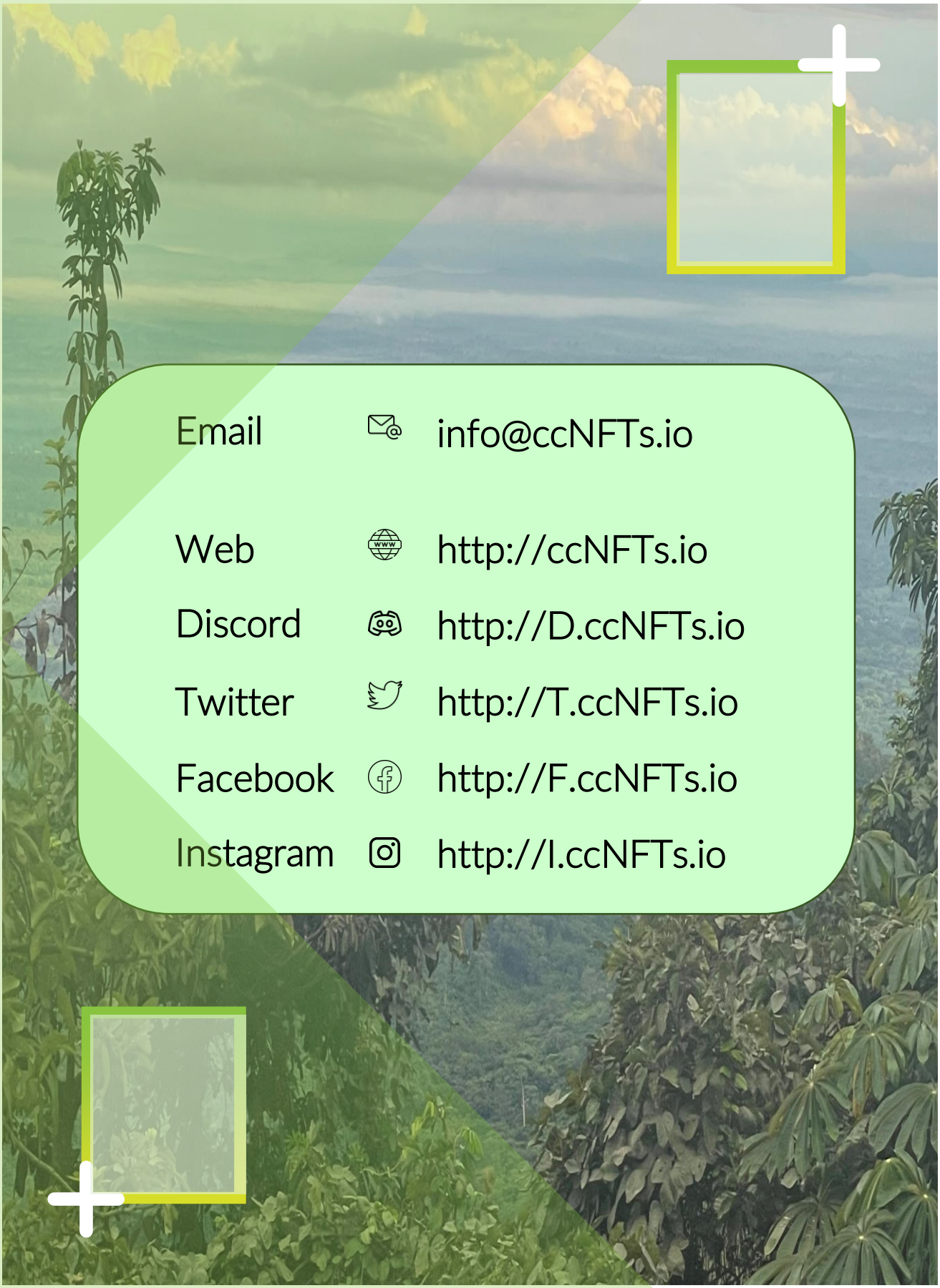
Mark Lawrence, Founder. Developed the business model for Carbon Collectible NFTs.

Ernest Gaia, DAO Architect. Investigating a DAO structure, developing relationships with other DAOs and working with local entrepreneurs on sustainable and profitable solutions to legacy challenges.

Kevin Raines, Data Scientist. Developed the satellite navigation app that zooms in on each hectare plots of forest land and integrates with the 3rd party carbon sequestration oracle.

Turan Atakan, Web 3 Developer. Developed the Web3 components for the Free NFT.

Shaphan Bowen, Web3 artist. Developed the art for the paid NFT.



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