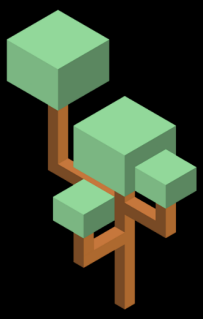

CryptoTrees

Algorand ASA ID: 444108880

Verified by the Algorand Foundation

www.cryptotrees.earth
www.crypto-trees.com

Using blockchain technology to plant trees, save forests, and assist the global fight against climate change.

Whitepaper v3.0

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INTRODUCTION AND OVERVIEW

CryptoTrees is a blockchain-based tree planting project that engages the community through the use of technology. The project has been verified by the Algorand Foundation.

We are hoping this project brings much needed awareness to climate change and the positive impact trees have on the environment. We're also strong believers in blockchain technology and would like to change public opinion about the whole space being harmful to the environment.

CryptoTrees is based in Sydney, Australia. Our team has experienced the devastating damage climate change is having on our environment. Bushfires / wildfires are becoming more violent due to increasing temperatures causing harm to the wider ecosystem. We have experienced this first hand and are determined to make a significant impact locally and globally.

We will achieve this by:

- Partnering with charitable organisations around the world who plant trees, save forest land, and promote awareness;
- Creating community initiatives through the CryptoTrees project where proceeds go directly to charities;
- Using blockchain technology to track and manage tree plantings and forest saving activities;
- Creating community owned NFTs with interactivity.

Important information about this version of the whitepaper

This whitepaper has introduced some significant changes to how the project will operate. Information in previous whitepaper versions is effectively null and void. While the core messaging from previous versions is still relevant, the details of this version properly reflect the current state of the project.

Transparency

We understand the importance of transparency when it comes to charitable donations. Proof of every donation will be accessible to anyone wishing to view them. Depending on the charity, this will come in the form of receipts, tax invoices, or other formal documentation.

As the Algorand blockchain is accessible to anyone, you will be able to follow the sale of charitable tokens to ensure it aligns with the donation (you may need to factor in the time of token sale and local currency conversion rates for this).

If any discrepancies are discovered, we ask the community to flag this to allow us to rectify or clarify the transaction.

All chosen charities will be fully vetted beforehand. These charities will be announced to the community so we can assess any concerns before committing to them. If the general consensus is to avoid certain charities, we will do so.

To reduce fees and administration time and costs, donations will be made at regular intervals (likely weekly). We will regularly reassess and communicate any changes to the community.

Blockchain

Algorand has been chosen as the most appropriate blockchain for this project to run on. On top of being a very user-friendly blockchain to use, it is also carbon negative which aligns with our objectives and core beliefs.

Algorand also provides an excellent platform for the use of NFTs and smart contracts to help achieve our goals.

In the unlikely event that switching blockchains is necessary, all token holders will receive tokens on the new blockchain based on their existing holdings.

Partnerships

We are actively looking for partners for our project. The crypto space has a tendency to announce partnerships for the sake of creating hype, and we have decided that we would prefer all partnerships to serve a function.

When assessing the viability for creating a partnership, we will carefully consider the benefit to both parties as this helps foster longevity of these partnerships.

PHASE 1 - Evergreen

Introduction

Phase One of the project involves the use of games and initiatives, where users can earn tokens that directly correlate with charitable donations. This is the core function of the CryptoTrees token in its default state.

While other project phases are exploratory, all elements of this phase are active and operating as intended.

In an unlikely worst case scenario, the project will always operate as per this phase, where users earn tokens and charitable donations are made.

Regular distribution method #1

Daily no-loss rewards game for token holders

Every day, 30 randomly chosen wallets holding at least 100,000 TREES tokens will be sent a reward of 100,000 TREES tokens. This is a no-loss system meaning that participants only need to have the minimum number of tokens in their wallet to enter. They can remove their tokens at any time. Doing so means they will not participate in future games until their balance is restored to at least 100,000 TREES tokens. **There is no entry fee.**

In order to reward wallets who enter consecutive games, there are two multipliers that give participants more chances to be selected each day:

1) Each multiple of 100,000 TREES tokens will constitute one entry. For example, holding 450,000 TREES tokens will grant that wallet 4 entries into each game. The amount of tokens is always rounded down as each entry requires a full 100,000 tokens. ***This completely eliminates reward farming as there is no incentive to split holdings across multiple wallets to gain an advantage.***
2) Wallets will get streak multipliers for every consecutive game they are eligible for. The formula is as follows: **entries = (TREES tokens held x (consecutive days x 0.01) + TREES tokens held) / 100,000**. For example, a wallet with 450,000 tokens who enters 40 consecutive games will be given 6 entries (instead of 4). This is calculated as follows: *(450000 (40×0.01) + 450000)/100000 = 6.3 (6 total entries).* Missing a single game will reset the streak multiplier to zero.

If a project-owned wallet address mistakenly receives tokens as a reward, they will be sent directly to the next chosen winner. A list of the developer wallets can be found later in this whitepaper.

For the sake of transparency, all tokens distributed via this method will be done from a single wallet. Anyone can view this wallet and track all transactions.

Regular distribution method #2

Daily no-loss rewards game for liquidity pool providers

We understand the importance of liquidity pools for the success of a project. Wallets who provide liquidity to the TREES/ALGO pool on the Tinyman DEX will be automatically entered into a daily no-loss rewards game in order to reward those helping strengthen the project.

Each pool token (totals are visible within the Tinyman DEX) equates to one entry. More tokens means a wallet has a higher chance of being randomly selected. 30 rewards will be given out based on the order the wallet is selected. Here is a breakdown of the rewards:

- Wallets selected 1-10 will be awarded 200,000 TREES tokens
- Wallets selected 11-30 will be awarded 50,000 TREES tokens

Each individual wallet can win one reward per day, but are eligible to win every day.

Fair selection for regular distribution methods

To ensure the winners of these distribution methods are chosen fairly, we are using spreadsheet formulas to create the winners lists.

All eligible wallets are exported from AlgoExplorer and added to the spreadsheet. Depending on the game, different formulas are added to finalise a list of wallets and the number of entries they have in a certain game. This ensures elements such as multipliers are calculated correctly prior to selecting the winners.

The spreadsheet will then process the winners via a RAND formula. Given the nature of the games, the winning list may have duplicate winners. All duplicates are removed from the winners list while leaving the first mention of a specific wallet.

The order of the list remains intact, and the winners are selected starting at the top of the list until the number of winners has been reached.

Given there are multiple games daily, this method is used to process the winners in an efficient and fair way. This allows us to focus on developing the rest of the project.

Ad hoc distribution method

Events, games, quizzes, and community initiatives are just some of the ways people will be able to earn TREES tokens. These will be announced on an ad hoc basis with details provided across our website and social media platforms.

These initiatives will accompany the regular distribution methods, and the conditions surrounding them will be at the full discretion of the CryptoTrees team.

Important notes about these initiatives

To avoid people buying tokens right before each snapshot and selling right after, the exact time of the daily snapshots will not be made public. The window will typically be between 8pm to midnight GMT every day. Changes to this timeframe will be communicated before any permanent changes.

The team will do their best to distribute tokens to the winners on a daily basis. There are many events out of our control which may delay payments to winners. We will always have an accurate daily snapshot, so the winners will still be selected fairly and at the appropriate time.

In the rare event that a snapshot is not possible on a specific day, the number of winners will increase for the next day or alternative solutions will be proposed to the community for discussion.

Token minimums and rewards

As the price of the token changes, the minimum token amount may vary to ensure the barrier of entry remains low.

At this time, we do not plan on adjusting the reward amounts for the regular distribution methods, but reserve the right to make adjustments if doing so will benefit the project.

Charitable donations

The majority of distribution initiatives will be matched with charitable donations. This involves sending TREES tokens to a dedicated wallet, then sold off at regular intervals. Every care will be taken to have minimal impact on the price. Our heavy focus on strong liquidity ensures this will always be minimal.

The funds sent to the donation wallet will be used (but not limited to) these activities:

- Direct donations to charitable organisations
- The funding of charitable activities (purchase and execution of tree planting and forest management including associated costs)
- In-person charitable events

The funds in this wallet will not be used for salaries, contractor payments, or other CryptoTrees personnel fees/payments.

PHASE 2 - Mycelium

Introduction

This is an exploratory phase in which we aim to utilise technology to create a project that goes beyond simply making donations to charitable organisations.

While we believe that we can achieve success in this phase, we understand our limitations and the reliance on 3rd parties to properly execute this plan.

We may rely on direction from the community and relevant experts while working through this phase.

Location-based tree mapping via NFTs

The first part of this phase will be the introduction of a global initiative to showcase the unique beauty that trees have on the world. Unique, significant, and incredible images of trees around the world will be pushed to the blockchain via the use of NFTs.

How?

Photos of various wonders of the tree world will be taken and placed into an NFT in a trading card style.

The CryptoTrees website will have an interactive map to allow anyone to explore the NFTs. The map will point to the exact location of the photo and provide information on the NFT.

Anyone will be able to submit photos to be used as NFTs. There will be a strict process to ensure that the photos we use are original and are owned by the submitter.

Buying and selling

These NFTs will be sold on one of the popular NFT sale websites. This is to be determined.

Funds raised from the sale of these NFTs will be allocated as follows:

- 50% to the charity wallet
- 25% to the person submitting the photo

- 25% to the project to further develop the initiative

All NFT sales will be in ALGO so no TREES will be sold throughout this process.

NFT design & style

The style and exact information these NFTs will contain is yet to be finalised (think Pokémon trading cards). Here are some of the likely core elements:

Photo

These will be photos we have personally taken, or the community has submitted. There will be a strict verification process to ensure that all photos are allowed to be used. These photos will be of things like unique trees, forests or large areas of trees, incredible features (e.g. wild above-surface roots), and other interesting features.

Photos published to the public domain (CC0) may be used where appropriate.

Information

The NFT may contain information about the photo. For example; “This is Hyperion, the world's tallest tree, standing at over 115 meters tall”.

If appropriate, it may also mention the common name and technical species name of the tree in the photo. For example “Coast redwood (Sequoia sempervirens)”.

Coordinates

The exact coordinates of the photo will be provided. This will allow anyone to navigate to those coordinates, or use Google Maps / Google Earth to explore.

Unique identifier & QR code

A QR code plus a unique number code may be added to all NFTs. This will allow for access to the map that tracks all NFTs. The identifier may end up simply being the NFT ASA.

NFT Staking

Staking NFTs is a suggestion that has been raised many times. We will explore this concept in relation to the NFT mapping project.

At a high-level we are exploring the possibility that some (if not all) of these NFTs will generate a passive income for the wallet that owns it.

This idea will need to take into account the tokenomics of the project to ensure distribution is not negatively affected.

NFTs - proof-of-action

We are aiming to use NFTs as a method of proof / tracking for various activities. An example of this would be where a tree is planted, and an NFT is created for that specific tree.

At an individual tree level this might be too difficult, but a forest plot or adoption of land is more do-able. We will fully explore all options.

These types of trees will have a tracking or update system. This would mean that the NFT is tied to specific data including but not limited to; GPS coordinates, accessible database with progress, and environmental changes.

If these NFTs are sold or transferred, this information must be accessible by the new owner. We will explore multiple methods of embedding data into NFTs that can remain timeless.

Land purchase

The project may purchase land locally in Australia for the purpose of planting trees on behalf of the community.

The purchase of land will allow us to have full control over tree planting, monitoring, maintenance, and even more advanced features for the community (live streaming webcam, installation of sensors etc).

Australia has strict council and governmental rules around the use of land and the planting and maintaining of trees, so all policies will be explored before pursuing this avenue.

The ultimate goal of the CryptoTrees project is planting and protecting as many trees as possible. The viability of land purchase will come down to whether it will benefit the project overall and drive us towards our goals.

Smart Contracts

While NFTs seem like the easiest solution, there is an opportunity to have smart contracts created for a similar purpose.

If it's determined that the use of NFTs for this objective isn't ideal, we will aim to create a system which 'logs' information about tree plantings or forest plot ownership directly onto the blockchain. Whether this is possible through the use of a smart contract will be explored.

Algorand developers will be sourced for smart contracts.

Wherever possible, we will ensure all smart contracts are audited by a trusted party, ideally well known in the Algorand space. For example, Yieldly has recently offered to audit technology used by projects on the Algorand blockchain.

3rd party applications

While it's ideal to have data controlled by the blockchain itself, we may need to rely on 3rd party applications to achieve the end result.

We are not against the use of 3rd party applications, but it will be a last resort, and ideally integrates into the blockchain.

For example, planting or plot data may be pushed to the blockchain, but is then referenced in an external database for ease of access.

3rd party applications may be a great temporary solution while more decentralised options are worked on.

Questions to be answered

As this is an exploratory phase, there are many questions to be answered. Some key areas to explore in this phase include answering the following:

- Can we add functionality to the website to facilitate the buying and selling of the location-based NFTs?
    - Is a 3rd party a better option and can they integrate into our website?
    - Are they willing to partner with us to provide custom functionality?
- Are there any charities that are willing to do the physical work (planting trees, reserving forest plots), and provide proof to push to the blockchain?
    - Can they then provide updates on the progress of this work?
- Are there organisations (ideally in Australia) that will allow us to plant trees and manage forest plots ourselves?

- Will we need to rely on land purchase to achieve success in this phase?
    - What government restrictions or issues could we run into from buying land purely to plant trees.
- How viable is getting regular updates to ensure any planting or forest plots are still thriving?
- Can this data be indexed and added to a database for anyone to access?
- If NFTs are used, will there be value to the owners?
    - Would resale value be prevalent?
    - How would these be distributed?
    - Could users buy NFTs where the funds are then used to carry out the action (e.g. an NFT to plant x number of trees. The sale then funds the actual planting process.)
    - Can these NFTs be staked?
- Would QR codes attached to the NFTs be appropriate?
    - Are there issues around longevity of QR codes and what they link to?
    - Would a simple ID number or the ASA ID of the NFT be enough?

These questions cover our initial thoughts on this phase, but many more will arise. The promising part of this phase is there are MANY ways to go about seeing success, even if the most ideal options aren't feasible.

PHASE 3 - Xylem

Introduction

The inclusion of Phase Three in this whitepaper is to demonstrate our longer-term goals. It is important to focus on the successful continuity of Phase One (Evergreen), and the exploration and execution of Phase Two (Mycelium) as a priority. If we've successfully passed those phases, work will begin on Phase Three (Xylem).

Xylem explores the use of the metaverse, virtual/augmented reality, and interactivity.

Virtual forest

This phase involves creating a virtual place that users can explore and interact with - essentially a virtual forest.

This would likely be a web application where users can navigate through the virtual forest. The forest they are exploring is made 100% of CryptoTrees tracked trees, forests, or other elements.

Let's say we have planted (and fully tracked through NFTs or smart contracts) small forest plots in Africa and South America. The user would be able to click on a location that launches a virtual tour of a forest area. This forest area would have information about the work CryptoTrees has done.

Depending on the amount of information and detail we can feed into this application, users may be able to see imagery of the actual trees planted and take a 360° virtual tour of the forest.

If NFTs are used, interactivity would include seeing NFT information and being able to purchase it. This can extend to 'empty' NFTs which users can buy and we work on turning that area into planted forest.

This map can be extended to other charitable activities that involve trees. For example, if there are major bushfires happening in Australia, this could be highlighted on the map where users can donate, or purchase NFTs where we take the proceeds and help alleviate the damage.

Whitelabeling this technology

On the assumption that this functionality was completed successfully, we would look to whitelabel it for other charities or organisations to use. Many charities talk about the great impact they have around the world, and being able to put this information on the blockchain that can then be viewed through an interactive interface, would help drive donations.

TOKENOMICS

Total TREES tokens: 50 billion (50,000,000,000) with zero decimal points

Initial liquidity (10%)
An initial liquidity pool was added to Tinyman as an ALGO/TREES pair. Liquidity provided was 10% of the overall token supply with approximately 1,000 ALGO matching it.

Giveaway pool (35%)
All games, events, quizzes, community initiatives etc. with token rewards come from this allocation.

Donation pool (35%)
Tokens sent from the giveaway pool are matched, sent to the dedicated donation wallet, and donated to tree planting charities or used as funding for other charitable activities.

Project development (20%)
This pool contains funds for the development of this project. Development activities include, but are not limited to; marketing activities, staffing, project operations, partnerships, consulting, general expenses, and promoting the project. This amount has been determined based on the longevity of this project to ensure it can be funded long-term.

Wallet addresses

A current list of wallets associated with this project can be found below. Any future wallets will be added.

Founder wallet (initial liquidity, donation pool, & giveaway pool)
FC74MJE3LPG3WH2CLNJ6MQQTVT6B3D6X43XQ7YG57TPFOJ4ZHAXSYPNYQI

NFT management wallet (official NFTs are minted through this wallet)
UJ3AXFERKQ5KRFPSZ35MVPEPRU5RPASDLXSDFIB7SHW7PFU5MH3ABMJIIU

Donation wallet (tokens are moved into this wallet prior to donation)
2RSW5TQQC4SSQUWORLRB2TUTVI7IC6PBIS3XM333SL7B5UT6RJAIFMPQGA

Transaction histories for these wallets can be seen at algoexplorer.io

FUNDING THE PROJECT

The primary method of project funding will come from the reserved project development funds. Where possible, payments will be made to vendors using TREES tokens directly to avoid the need for a sell-off. This follows the exact same process that most other projects use.

Where appropriate, we will request that larger payments not be sold off by the vendor immediately or with other conditions attached. We won't always be able to enforce this, but will offer favourable terms to vendors who accept.

Prior to selling off any funds from the project development pool, we will use all funds received from alternate funding sources (see below).

Sell-offs will never be done in a manner that hurts the value of the project. If funds are needed, smaller, irregular sell-offs will happen.

As part of our commitment to stay fully transparent, we ask that if anyone is unsure what a specific transaction is for, they please reach out for an explanation. Note that certain payments may need to remain anonymous if they are for sensitive purposes (partnerships, exchange listings, or other non-disclosure ruled payments), but we will provide as much information as possible.

The early stages of this project will see almost zero sell-off with funding provided personally by the CryptoTrees team (where appropriate). The project development funds are ultimately a limited supply, and selling off too early can damage the chances of success. A good example of this is selling off with a token value of $1 now, when a $5 token in the future would allow us to access 5 times more funds for the exact same number of tokens.

Some other methods of funding are mentioned below.

Artistic or novelty NFTs

We have started experimenting with NFTs across various platforms and styles. This experimentation has been solely using artistic NFTs while we learn the best ways to use the technology for other phases of this project.

Unless otherwise stated, all artistic NFTs are unique artworks created or sourced by the CryptoTrees team. Artwork will typically be minted once to ensure uniqueness.

NFTs minted more than once will have this information clearly displayed in either the description, or on the platform hosting the sale.

Proceeds from the sales of artistic NFTs created by the CryptoTrees team will go directly to paying project bills, operating costs, and marketing initiatives. This helps the longevity of the project by avoiding the need to sell TREES tokens from the project development fund.

Artistic NFTs are collectables and won't be eligible for NFT staking unless otherwise stated.

Liquidity fees

The initial liquidity provided by the CryptoTrees team will remain indefinitely (we reserve the right to split this liquidity between exchanges if required). The Tinyman pool rewards liquidity providers with a cut of the fees based on how much of the pool a wallet contributes.

These fees are automatically added to the existing liquidity pool in the form of the pool token value. The exact number is made clear on the Tinyman liquidity pair page under 'Earnings since your last pool transaction'.

All fees earned through liquidity pools will be put towards project development (note that this was voted on by the community with 88.6% of votes in favour of it).

This funding avenue will only ever remove the *earnings* from the pool for project funding. For example, if the earnings have accumulated to $200, we will remove the equivalent of $200 from the pool. This amount is pure earnings from trading fees and does not reduce the amount of liquidity initially provided.

This allows us to receive funding without having to sell off any tokens. This has a much lesser impact than any token sell-off.

This will also apply to other exchanges where we are able to earn fees from liquidity. We will explore the fee structure of these alternate exchanges and ensure the exact amount generated from fees is clear. This ensures that removed liquidity is solely profit from frr generation.

Donation wallet

An important point to note about the project funding is the charitable donation side. The donation wallet (mentioned earlier) is where we send funds to be used for charitable donations. At the moment, all funds collected in this wallet are donated to charity. Pending success past Phase One, some of these funds may be used for charitable purposes that the team conducts themselves. For example, if we physically plant 100 trees, the purchase of these 100 trees may come from the donation wallet.

This will be assessed on an ad hoc basis and will vary from project to project.

CONCLUSION

This whitepaper proposes many methods to plant trees and save forests around the world. In its simplest form, this project will raise funds to donate to existing, and reputable charities who are aligned with our goals.

As the project advances, the CryptoTrees team will be more directly involved in the process. The project physically planting trees and saving forests will have the best environmental impact as the use of blockchain technology allows for all details to be tracked and verified.

Due to the success of the project to this point, we conclude that the project will, at a minimum, do everything in its power to have the best environmental impact as possible. As Phase One has been successfully executed, this will serve as an absolute minimum the project will continue to do.