OASA

Whitepaper v1.2

A Web3-powered nature conservancy network serving regenerative human living spaces and the planet.

With thanks

Climate Collective   ◎ celo   ☀ REGEN NETWORK   ◍FP   ⬡ re:build

The year is 2050. In the midst of the global desert landscapes[1], a new civilization is flourishing. This civilization embraced a Sacred Economy[2] for over 20 years, and is inexorably restoring the planet's soils, water cycles and biodiversity. Growing biodiverse and native forests, settlements achieved to recreate natural biotic pumps[3], similar to those seen in the Amazon in the pre-internet era. The civilization is a deeply nested and overlapping network of collaboration frameworks distributing resources to optimize and preserve Nature's design. Resources are produced in the network by agents that create true ecological benefits. Its citizens spend no currency on living amenities since they benefit from the abundance of resources in their commons. This frees up their time to focus on what truly matters to them, and what truly creates value for their beloved commons.

This is built upon the internet of value[4] (web3). In 2030, the regenaissance[5] decade ends - and a natural economy is booming. The global financial system evolves from an extractive to a regenerative one. Decentralized organizations around the world accelerate their impact by embracing a system-thinking approach to economics. Natural assets are sought after as central banks and decentralized protocol treasuries recognize them as the value backing the economy, rewarding stewards building capacity for regeneration in the process. Resources, critical knowledge and human creativity flow towards the optimization of the commons.

With the aspiration of building a regenerative way of life OASA turned its eyes on Portugal and established its first regenerative prototype - [Traditional Dream Factory](https://...) (aka TDF) in 2021. TDF is the first blueprint in developing a new form of living that is more in tune with nature and with human creativity.

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[1] Liu, Y., Xue, Y. *Expansion of the Sahara Desert and shrinking of frozen land of the Arctic.*
[2] Charles Eisenstein *Sacred Economics*
[3] Anastassia Makarieva, Victor Gorshkov *The Biotic Pump: Condensation, atmospheric dynamics and climate*
[4] Horst Treiblmaier *Defining the Internet of Value*
[5] Future of Cities, Design Science Studio *Regenaissance: Art Inspiring a Regenerative Future*

Glossary

DAO: Decentralized Autonomous Organization or DAOs are organizations represented by rules encoded as a computer program that are transparent, controlled by the organization members and not influenced by a central government. We may refer to DAOs simply as the governing body of Projects.

Project: A sovereign social, economical, ecological and cultural unit within the OASA network composed of a DAO with a governance system, a physical asset (i.e. land), a Token and a group of Members.

Member: A participant in one of the Projects, also part of the Project's DAO and thus of the project's governance.

Token: A utility currency used by a Project.

Regeneration: Regenerative development is the process of harmonizing the activity of human communities with the continuing evolution of life on our planet–a process that also develops our own potential as humans.

TDF: Traditional Dream Factory - the first Project in the OASA network, located in Abela, Portugal.

Principles: Principles of Regeneration and Land Stewardship

Web3: new iteration of the World Wide Web based on Distributed Ledger Technologies (such as blockchain) that allows projects and communities to launch and rule their own token-based economies. Typically incorporating concepts such as decentralization, blockchain technologies, and token-based economics. Contrasting to web2 where data and content are centralized by 'big tech'. Web3 distributes information/control amongst its users who have a higher degree of autonomy on how their data is used.

ReFi: Regenerative Finance movement forming at the intersection of Web3 and climate action.

Commons: The commons are cultural and natural resources co-governed by its user community according to the community's rules and norms[6]. Commons are those goods

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[6] David Bollier *The Commons, Short and Sweet*

that depict a high subtractability of use and where it is highly difficult to exclude potential beneficiaries[7].

CMM: Commons Market Maker, a (set of) smart contract(s) that aim to create a primary market maker (minting when user purchases and burns tokens when user sells back if allowed) aimed to fund the investment and management on a common resource[8]. The CMM accumulates and manages the assets in the Common Pool and it serves as an instrument to the community to set the rules on how the extra liquidity can be managed.

Stewardship: The responsible management and caretaking of natural resources[9], the environment, and the facilities. Entrusting a group of people (the stewards) to plan and manage the land regeneration and facility usage so they can maintain and enrich the commons.

***Go-live* event**: The *go-live* event marks the completion of the initial vision for the project, with all infrastructure built according to the main roadmap and architectural masterplan. It implies that the funding required has been raised. The *go-live* is enacted by DAO decision, and upon activation of the parameter in the smart contract, the Tokens will be transferable.

OASA: is an Association based in Switzerland, purpose of which is described in its Articles. Essentially it is an organization and a network building regenerative living spaces. https://oasa.earth

Articles: Articles of the Association

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[7] Johannes Euler *Defining the Commons*
[8] See From Bonding Curves to Commons Market Makers
[9] https://ecologyandsociety.org/vol22/iss1/art49/#stewardship

Introduction

This Whitepaper describes the plans for the OASA Association's conservation network and blockchain-based Membership and Token access system.

OASA Association's purpose is to preserve, protect and regenerate land, to improve the biodiversity of existing natural ecosystems and the quality of life for present and future generations while allowing its Members to access, steward and enjoy the facilities and natural ecosystems on these lands.

OASA has as a goal to acquire land to form new commons, collectively managed by decentralized autonomous organizations and prototyping a way of life that leaves a positive trace on our planet. This means working to understand how to encourage biodiversity and bolstering the regenerative capacity of our natural ecosystem. It means building resilient food and energy systems that lower our footprint and reduce our reliance on external resources. It means nurturing creativity and human ingenuity. It means rebuilding our relationships to the natural world, to the things we eat, to our neighbors.

In its first part we describe the functioning of the OASA network. In the second part we describe OASA's prototype Project, the [Traditional Dream Factory.](#) We hope this will inspire you to take a step (big or small) towards a regenerative civilization.

OASA: Web3 Nature Conservation Network

The What

Playing the Game B[10]

Using whole system thinking[11], we are designing for win-win-win eco-cooperation enhancing the quality of life of our Members, our neighbors and our environment. This is an Infinite Game[12].

Get rewarded for conserving nature - #Conserve2Live

By purchasing OASA Tokens, you finance conservation and regeneration of land. We conserve wildlife areas, plant forests, monitor their growth and track ecosystem services generated (such as carbon sequestration, biodiversity, etc.), creating a ledger of natural assets under regenerative management. As regenerative work takes place, everyone benefits from better living spaces, better air and water quality, more biodiversity, all while accessing untapped creativity, collective intelligence, and supporting more humans doing the work that makes them thrive.

From Ownership to Stewardship

Members and Token holders do not hold any ownership claim on the land, nor does anyone else. The land is locked under a new form of commons, which enforces stakeholders to leave a positive trace. The OASA Association removes central ownership from a landowner and instead puts the land into a DAO governed commons where the land is protected in perpetuity. The non-profit gives eternal access rights to the Project to live on the land and run businesses that are in line with non-extractive and regenerative behaviors. Members of the Project get access rights to the property based on their Token holdings. In this way we move from ownership to stewardship.

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[10] [Game B](#)
[11] *[What is Whole Systems Thinking](#)*
[12] Simon Sinek *[The Infinite Game](#)*

Creating a Sacred, Nature Backed Economy

We aim to develop prototypes of regenerative co-living and co-housing Projects around the world, each sitting in different cultural and ecological contexts. The value from the housing units is what drives the initial adoption, but in the long run the villages become cultural centers that create the legitimacy for the larger regenerative capacity being developed on the remainder of the land.

Nation to **Network State** - with DAO based local democracies

Nation States are faced with the dilemma of having to solve global issues (climate crisis), using limited local resources. This is a classic free rider problem - we are tempted to extract just a few more resources and pollute just a bit more, taking profit at the expense of the commons - this is referred to as the *tragedy of the commons*. At the same time, our national democracies have become plagued with polarization. Enabling locally based governance is a way to increase engagement in the communities, who can see the real world effect of their decisions. Governance and spending at the neighborhood or city level enable citizens to regain sovereignty over their decisions, and to adapt them to their local context. DAOs have emerged as an innovative tool to create more contextualized decision making structures, and combined with an economic system incentivizing the protection and regeneration of the commons can become an actor for solving global issues.

The How

[OASA](#) acquires land by establishing or increasing Projects' sizes. The lands are protected under the Principles. The Projects regenerate the land and develop the living facilities for Members to use. Projects are governed with decentralized and collective governance mechanisms, designed for the prosperity of nature and humans alike.

The Principles

OASA and its Projects are founded upon the [Principles of Regeneration and Land Stewardship](#) (aka "the Principles"). OASA Projects have to adopt and implement the Principles to be a part of the network. The Principles ensure that all co-creators of Projects maintain soils, native vegetation, water bodies, and other resources of the projects to the fullest extent possible. They also ensure that the Projects embody a culture with a sense of community, love, empowerment, care, and respect.

The Legal Framework

OASA is established as a non-profit Association in Switzerland. The Association is composed by the following bodies:
- **The General Meeting**, which is made up of all members of the Association. Members of the Association are Members of OASA Projects that have significantly contributed to their development and individuals that may not be Members of Projects but that become Members of the Association by contributing to the fulfillment of the Association's regenerative vision with their expertise and values. The General Meeting approves new members, appoints the Steering Committee, the Council of Regeneration and the Committee that designs OASA Project Onboarding Process.
- **The Steering Committee** is the executive body of the Association, has the duty of looking after the interests of the Association and is responsible, together with the Council of Regeneration, for monitoring the Projects' alignment with the Principles. This Committee is also in charge of the financial and administrative tasks of the Association.
- **The Project DAOs**, which are the bodies that execute OASA's land regeneration and co-living and co-housing projects. Project DAOs are wrapped in legal entities that bring together a physical asset, a group of individuals (Members) who have a collective and decentralized governance structure, and a Project Token. In all their action domains, they implement the Principles.

- **The Council of Regeneration,** which is an independent body, whose main purpose is to assure that the Principles are up to date, functional and followed and adhered to. The Council may propose changes to the Principles. The Council also acts as a special dispute resolution body in case of breach of Principles.

We recommend reading the [Articles of the Association](#) to understand its full scope of action. These address the legal setup of OASA, membership obligations, and Association's power dynamics and legal responsibilities.

The Projects

OASA is composed of a network of independent Projects that are governed in a decentralized and collective governance manner. The Projects are designed for nature and humans to thrive equally. In this context, 'Projects' are the structures executing this vision.

Projects can be added to the Association by going through the Project Onboarding Process defined by the General Meeting of the Association. An OASA Project consists of:

- One or more [physical assets](#) (e.g. land or a boat) stewarded under the Principles;
- A [DAO](#), its [Members](#) and a [Governance system](#);
- A [Project specific Token](#) (or Tokens), that is used by Members as a utility currency to enjoy the Project's living facilities with privileged access and to participate in its governance.

Each OASA Project is governed by the Members of its own sovereign and independent DAO, with the underlying commitment to the Articles and Principles of OASA. Each Project issues their own Tokens and the funds collected through Token sales are used to execute the Projects by acquiring real estate, regenerating the land, developing the living facilities, and any further elements voted by the Project DAO. Members of a DAO that hold Tokens of the same Project are rewarded with privileged access to those co-living and co-housing facilities, and take part in the collective and decentralized governance of the Project. Each Project DAO is sovereign to design its own Token economy and collective governance model provided that it reflects the Principles.

To assure the legal recognition of this structure we incorporated OASA in Switzerland. Swiss jurisprudence has pronounced itself on DAOs and Tokens, thus creating a legal precedent for these technologies to be recognized in the legal realm. In this way we ensure that OASA

Token holders and DAO Members of OASA Projects may receive the Token utility described in this whitepaper.

Physical Assets

OASA's structure is designed to prioritize regenerative action, and that is reflected in the way we hold the lands' and other assets' titles. We are designing a blueprint for a new regenerative civilization and architecturing ways to **move away from ownership and towards stewardship.**

OASA removes direct ownership from one or several asset owners and instead holds all Project assets titles indirectly as an Association. All properties, lands, and other assets that are governed by OASA Project DAOs belong to the OASA Association or to one or more 100% controlled subsidiary companies in the form of a special purpose vehicle (SPV). Projects are autonomous in stewarding the asset, as long as it is done in accordance with the Principles. The Principles work as OASA's self-proclaimed constitution, in that to be part of the network all Projects have to uphold them. Token Holders and DAO Members thus have no ownership right over the physical assets where projects are developed. Instead, Members of the Project DAO have privileged access rights to the living facilities based on their token holdings. These holdings also give them governance rights to participate in the Association's collective decision-making processes. In sum, Members of the Project DAOs who have Token holdings gain a utility right and a governance right over the Project. In this way we move from ownership to stewardship.

Project SPVs are managed by a Board that is appointed by each Project's DAO. SPVs receive funds from the Project's Token sale to develop the Project, in accordance with DAO decisions. In case of failure of the OASA project, all assets are to be distributed to organizations with a similar scope. With this we make sure that, despite our lack of success, the assets remain in regenerative hands.

DAO, Members & Governance

1. DAO

OASA Articles recognize DAOs as sovereign entities that govern and develop Projects. A Project's DAO is thus an organism that encompasses individuals, their decision-making processes encoded in a digital protocol and their Tokens.

Each Project's DAO has autonomy in setting up its own governance system, provided that they comply with OASA's Articles and Principles and with the following foundational premises:

- Project DAOs organize their planning, management and execution plans in a decentralized and communal effort. In practice, this means that each DAO has to regularly submit a roadmap proposal with a plan for the upcoming period, and this roadmap must be approved by the DAO Members before execution. Project DAOs have autonomy in selecting their decision-making process, provided that decentralization and commons are at its core. The roadmap should include aspects such as social, cultural, environmental and financial resources to be used in the different DAO domains, for e.g. construction, land regeneration, community, etc.

- Every Project DAO vote shall be cast on a publicly available blockchain platform (e.g. Snapshot), and the platform used shall be made known to the Steering Committee of the Association.

- Once approved, Project DAOs Roadmaps are to be implemented by the local SPV. Project DAOs elect the board of the SPV. The DAO decisions are binding for the SPV, and the Association assures that the SPV implements them. In the case that an act of the SPV is in contradiction with a DAO decision, the Association (as it owns the SPV) is obliged to intervene in order to modify the SPV action.

- Project DAOs elects up to 5 delegates that have a significant involvement with their Project to represent their interest as Members of the OASA Association.

- Project DAOs can vote on updating their governance parameters (such as voting weight formula, voting period, quorum etc - see "Governance").

- Project DAOs Treasury Members (elected by the DAOs) are signatories to the Project's multisig wallet that collects funds from the Token sale. This shall be a Multisig wallet with at least 3 signatures. DAOs are responsible for transferring funds to the local SPV for the Project's development and for making any payment to the OASA network for setup and ongoing operational expenses. Projects contribute preferably in function of their abundance (self assessed, and negotiated between Projects to reach the goal), or by weighing each Projects contribution according to its Token market cap should another arrangement not be made.

- The Project DAO does not hold responsibilities, cannot express any vote, act or request the SPV to perform on the following topics:
    - Decisions on dividends and any other financial decisions that confer a financial advantage to the Token Holders.
    Tokens from OASA Projects are *utility* Tokens. This means that for those who are Token holders and also DAO Members, Tokens confer rights of privileged access to living facilities and they confer rights of governance. OASA's architecture is done to amplify planet-positive impact and create new regenerative economies, and not focused on increasing personal financial gain. The OASA Association legal set up does not permit Token holders to gain direct financial advantage from the Tokens within OASA's scope of action.
    - Decision on liquidation of the SPV, as it is a domain of OASA;

Put in a nutshell, Project DAOs can make decisions in all domains concerning the development of the Projects, provided that they are aligned with OASA Articles, with the Principles and that they do not entail decisions that would offer financial advantages to Token holders - we are designing OASA for planet-positive impact, with a focus on regenerative impact and not personal financial gain.

2. MEMBERS

Members are the co-creators and the life force of OASA's mission. After all, Members bring Projects to life.

To be a Member of one of the OASA's Projects, an individual must be accepted as a Member in accordance with the respective Project DAO's onboarding process. To make sure that each DAO is sovereign and can uphold relevant cultural values, each Project DAO has autonomy in designing their Members' onboarding flow.

Each Project DAO thus decides what benefits and duties Members have towards the Project, in line with OASA Articles and the Principles. The OASA Articles set the foundation that Token Holders that are also Project DAO Members must be allowed to participate in the projects governance, and that Members must access the living facilities of the Project with privileged access when compared with non-members. The governance model and the scope of the access rights is for each Project DAO to design.

If a Token holder does not get accepted as a Member, they are unable to use the Tokens to stay at the living facilities with benefits and they do not participate in the Project's Governance. However, they may sell their Tokens on secondary markets, provided the DAO has enabled its Tokens transferability (see *go-live* event in the prototype).

Project DAO Members that contribute significantly to their Projects' development can be invited or ask the OASA Association to be a Member of the Association and get involved in the care and development of the network.

3. GOVERNANCE

The governance of each DAO is done in a decentralized and collective model, by using digital Tokens that grant voting powers to the DAO Members. Projects have autonomy in setting up their governance system, provided that they comply with OASA Articles, with the Principles, and with the following foundational guidelines.

The OASA network and its partnership with the [Closer platform](#) provides some basic governance primitives[13] that the DAOs can utilize. The DAOs may, however, add additional primitives to base their governance on, so long as the Project continues operating in a spirit aligned with the Principles and in maintaining the best possible outcome in ecological, economical and sociological terms for the Project, our Members, our neighbors, our broader ecoregion, our planet and future generations.

- **Proof of Presence**

[Proof of Presence](#)(PoP) is a measure of a member's physical presence on the Project that can be used as a governance primitive. Project DAOs may elect to give higher voting weight to Members based on their PoP score so that effectively the more time an individual spends at a Project, the more they get to influence how the project evolves. It stems from the assumption that the longer a Member stays, the higher the level of guardianship, care, and work they put into the project.

PoP is produced through an on-chain booking mechanism developed by Closer ([see below](#)) that tracks the number of nights a Member stays in a Project. The voting weight is calculated by cumulating all nights spent, but the weight of each night decays over time so that more recent stays have higher voting influence than older ones.

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[13] In computer programming, a primitive is a basic interface or segment of code that can be used to build more sophisticated program elements or interfaces.

Example:
John spends 3 years at TDF but then leaves and isn't seen much after that (he is no longer active in the project). Julie spends 6 months at TDF every year.
In year 6, they would each have spent the same amount of nights. However, Julie's voting power will be higher because the Proof of Presence accumulated in later years would weigh more.

- Proof of Sweat

Another governance primitive developed by OASA for Project DAOs to determine the Members voting weight is Proof of Sweat. This is a measure of contribution accounting representative of the total amount of work provided. The Project DAO may issue a Proof of Sweat token in addition to their native utility Token to represent special governance rights conferred by work put into the project.

Example:
Julie spends 3 months on a project as steward and is rewarded 15 Tokens for her work. The DAO can issue 15 Proof of Sweat tokens in addition, which may confer additional voting weight.

- Voting Weight Formula

Each DAO may decide to evolve how it weighs the different governance primitives while taking into account each of its stakeholders - Members, Locals, Nature, Token holders, etc. For example, Tokens may count for 1 vote, Proof of Presence for 5, and Sweat Tokens for 5. These weights are set in the DAO's voting protocol (i.e., Snapshot).

A suggested formula to calculate the voting weight of a member could look like:

$$Voting\ Weight\ =\ X\ Tokens\ *\ 1\ +\ Y\ Proof\ of\ Presence\ *\ 5\ +\ Z\ Proof\ of\ Sweat\ *\ 5$$

Example:
Julie earned 15 Proof of Sweat tokens for her work, and she purchased 30 Tokens. She used all her tokens for each of the last three years, so her Proof of Presence balance is currently 70 (90 total nights that decayed over time).
*When voting on DAO decisions, Julie's voting power is 30 + (70 * 5) + (15 * 5) = 455.*

We have put a lot of thought and resources into our governance mechanisms, however we acknowledge that there is a wide space for improvement: nights spent at a Project do not necessarily translate into a Members meaningful contribution to it, and sweat contributions

are both hard to quantify and to reward. Nevertheless, we have to start somewhere. Regeneration is about creating life and accepting death, as it takes many years, many seedlings and many dead trees to grow a forest. We welcome feedback in this iterative process of creating new collective and decentralized forms of governance.

Project Tokens

OASA Association has, as part of its legal structure, Project DAOs. Each of these DAOs, through OASA or otherwise, issues Tokens, the sale of which supports the development of the Project, and with which DAO Members participate in the governance of the Project.

This document sets the scope of the Tokens issued by the Association to be of utility. This means that OASA Projects Tokens are with a specific utility, e.g. privileged access to the living facilities of the Project and/or governance rights. OASA Tokens <u>are not</u> a financial asset - <u>they do not provide equity, future profit returns or any stake in the assets of the Association</u>. Token buyers do not have any credit or refund rights against OASA. Token holders may never request a refund of the Token in any form from OASA.

By acquiring a Project Token an individual is supporting that Project's land purchase, its regeneration and conservation and the development of the living facilities. In return, if the individual becomes a Member of the Project DAO, they also acquire the right to use the living spaces with privileged access and the right and duty to participate in the project's governance and ongoing evolution.

OASA has a big mission: to prototype a new regenerative civilization. We acknowledge that the narrow scope of OASA Tokens as utility only can discourage some to purchase them, especially if utility comes only with DAO Membership. Remember, if you are acquiring OASA Tokens you are supporting the purchase of assets that will be locked in regenerative hands perpetually. You are putting money into regeneration.

All this said, our work is continuous and ongoing. We are crafting new economies and creating new forms of valuable exchange. If you have any ideas, we welcome all fruitful collaborations.

The Closer Platform

This is an honorary mention. [Closer](#) is a collective of people that is developing an operative system for sovereign communities in the intersection of web3, community and regeneration, with a special focus on land projects. Closer is an independent project from OASA that is developing the digital interface that provides utility to the Tokens issued by our network - currently the Proof of Presence and the Web3 Booking Journey.

Closer has received support from [Regen Network](#) and [Climate Collective](#), and we want to thank these two for supporting our ecosystem and through that making our network possible 🙏.

The Prototype: Traditional Dream Factory

Overview of the architectural plans of Traditional Dream Factory [(by CRU)](#) as approved by the city hall in 2022.

[Traditional Dream Factory](#) (TDF) is the first Project within the OASA network. It is our prototype for building a regenerative co-living model within the scope of OASA's purpose and Principles. TDF's purpose is to serve as a living laboratory to put into practice and validate OASA's vision and potential to regenerate our lands and souls. It is also one of the homes of its Members ❤️🐑. The land title of TDF will be transferred to OASA, or into the SPV upon completion of the first phase of funding.

~1.5ha of the TDF land has already been reforested - through one native reforestation project done in partnership with [Primal Gathering](#) and [Reflorestar Portugal](#), and a food forest. In the approved architecture plans are 14 suites, 4 studios, a house, a coworking garden, a cafe, a makerspace, an industrial kitchen, a greenhouse, a natural pool and more.

To learn about TDF culture, you should head over to the [Pink Paper](#). After all, OASA's Projects are sovereign in crafting their ecosystems. In this Whitepaper we focus on $TDF issuance and its tokenomics.

TDF is a sovereign OASA Project: it operates through a DAO which issues a $TDF Token through the OASA Association. Regular roadmap proposals are submitted and voted on by Members. Closer's on-chain booking and check-in system are scheduled to start collecting Members' PoP on 1 January 2023, which is when we expect testnet validation to be completed.

TDF is pioneering a Web3 ReFi[14] economy based on an $TDF token issuance and utility that aims to optimize common resources while nurturing a creative and thriving community, and at the same time leave a positive trace on the environment while protecting land and community from the reversal of global economic trends. With this in mind, TDF Tokenomics are designed with the following perspectives:

↗ **Growing economy**: more members want to take part in the network so we can issue more tokens to develop more housing and/or acquire more lands (i.e. grow the OASA network and support more regeneration).

↘ **Shrinking economy**: spaces are leased out to non-members if occupancy drops.

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[14] *ReFi - Regenerative Finance - is a movement within the broader blockchain ecosystem that seeks to create a financial system that supports a thriving natural ecosystem. You can see a lot of projects as part of that effort on [ReFi DAO](). Our take on ReFi is to create an economy that drives the creation of natural beauty and restoration of the commons rather than extracting from our planetary (or extra planetary) commons.*

The $TDF Token economy

This section describes the policies, functions, and features deployed in our Public Sale smart contract that considers an only-growing economic scenario, with the aim of [funding the co-living facility's construction](#).

$TDF Deployment - Celo

The $TDF token is an [ERC-20 token](#) deployed on the [Celo network](#).

We chose to use Celo to be on an Ethereum compatible chain - which enables easier integration with the rest of the ecosystem - while choosing a layer 1 which is aligned with our ecological ambitions. Celo aims to hold natural assets in its reserves[15].

$TDF Tokens Issuance and Supply

The $TDF issuance (minting and burning) policy is regulated by a TDF [Commons Market Maker](#) (CMM). The CMM is a smart contract which mints new tokens on demand from the market, if there are Tokens left for the contract to sell. The contract will be initialized with the amount of Tokens available in the first round of funding, and can then be incremented by community governance. A burning function will be also deployed by community governance to be prepared for shrinking economic scenarios.

The TDF CMM is a socio-economic tool aimed to bond the TDF community in their trust on the regenerative project, and the value we will generate from the lands and living facilities. The pricing and buying and selling policies will evolve according to the DAO's proposals and decisions, while its first iteration is defined in this document.

While the ongoing $TDF supply is determined by the market demand and the CMM minting and pricing policies, OASA has currently established a target supply[16] which is set to be 18,600 $TDF. This corresponds to the total occupancy eventually available (under the municipally approved masterplan) in the living space times the number of days in a year. After the TDF go-live date—once all infrastructure is built according to the [main](#)

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[15] See the current asset allocation: https://reserve.mento.org

[16] *It refers to the number of tokens that will match the yearly booking utility. Due to the CMM (bonding curve dynamics), the actual Supply (total number of tokens) will be dynamic and adjusted to the token Demand. The target supply serves only as a reference number that might also be used for enabling the CMM selling function.*

[roadmap](#)—TDF DAO may decide to build more residential infrastructure and with that the $TDF supply may increase.

$TDF gives TDF DAO Members the right to spend nights at TDF at operating cost every year, meaning Members with $TDF can use the same Tokens every year to book their stays. The $TDF cost of accommodation depends on the type of accommodation chosen. Operating costs vary according to seasons and ongoing maintenance costs at TDF. See the table below for accommodation $TDF costs:

$TDF Target Supply Calculation

Accommodation Type	Quantity	Tokens per Unit	Days per Year	Tokens Issued	Max People
Shared Suite (per bed)	10	1	365	3650	1
Private Suite	9	2	365	6570	2
Studios	4	3	365	4380	3
House	1	5	365	1825	5
Van Parking	3	1	365	1095	2
Glamping	3	1	180	540	4
Camping	6	0.5	180	540	2
Total	26			**18600**	**75**

From the 18,600 target $TDF supply, 20% is reserved for Sweat Tokens. This means that 3720 $TDF are reserved for TDF Members and Advisors who have been contributing and building the project. Some of these have already been assigned to contributors, the rest of those will be deposited into a DAO vault/multisig.

The Sweat Tokens Reserve is distributed by the TDF DAO to contributors for completed projects that have been approved in the roadmap.

Buying $TDF

The CMM smart contract is the primary market maker minting the $TDFs being sold during a continuous token sale running on the Celo Blockchain. The smart contract regulates $TDF price in relation to the total supply.

The definition of the price strategy is an evolution of the previous strategies where tokens have already been distributed for investments (financial and/or sweat investment) during the Seed and Pre:build membership phases (see TDF DAO Ledger).

Since TDF is looking to incentivize early investment while also allowing anyone to buy its token, the price is designed to start at the current Ledger's price (see file above) of ~222€ while increasing rapidly for the first token buyers and have a slow, continuous increase that will reach a theoretical price of 420€ per $TDF token. With this in mind, we have selected a price formula (see also Appendix A to this Whitepaper) that will govern the increment of prices according to the increment of purchased $TDFs:
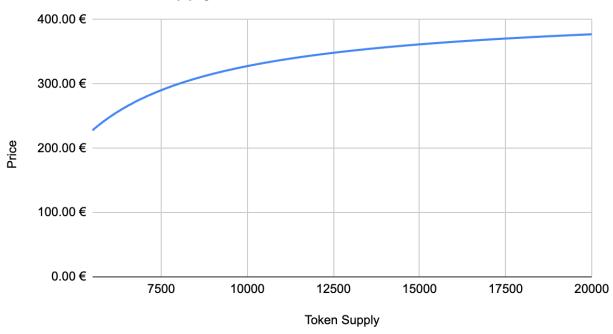
Price Vs Token Supply

Figure 1 - $TDF Price Curve with Initial Variables as S_0 = 5.381, S_0=222€

Example

If Alice purchases 100 $TDF tokens when there are 2,500 $TDF in circulation, she will pay ~23,000€, but if she waits too long and supply increases to 5,000 $TDF, the cost of purchasing those same 100 tokens will be close to 30,000€.

$TDF Token Utility

Accommodation costs: Tokens can be used by Members to redeem nightly accommodation at TDF directly through the platform developed by Closer and is available on https://traditionaldreamfactory.com.

Utility costs: The utility cost of staying at TDF, which is on top of the nightly accommodation cost, which can be covered by the $TDF tokens, reflects the predicted monthly operating cost divided by total expected paying occupancy[17]. While our initial estimate for costs is around 10€ per person per day (covering food, maintenance, salaries, taxes, insurance etc), one aim of the project is to reduce this cost over time as the project adds income streams to its portfolio (restaurant, store, energy production, etc.). The costs will be adjusted on a seasonal basis to adjust for profits or losses realized (on the operations only), and to encourage optimal occupancy of the space throughout the year. Costs might also be decreased if the TDF DAO Treasury is chosen by the DAO to be used for it.

$TDF Token Vesting

Tokens purchased during the build phase of the project are locked in the Token Holder's Celo wallet until the total amount of funding to complete the roadmap is reached, and the TDF construction roadmap is completed, which will trigger the so-called *go-live* event (see $TDF Target Supply Calculation), when the $TDF Tokens will become transferable and can be resold without limitation on public marketplaces. The activation of this *go-live* event will be by vote of the TDF DAO.

TDF DAO

The Traditional Dream Factory DAO, or TDF DAO, is currently established as a sociocratic impact organization serving its community of Members, the local community, and the ecosystem of Abela, the Portuguese village which this Project is on the edge of. It is aiming to become a model for a regenerative lifestyle. The DAO is set up initially to make decisions on Snapshot (initially setup with preTDF governance token). To learn more about TDF, please look at its Pink Paper.

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[17] *See the model: 📈Predictions: Guest occupancy + Member occupancy.*

TDF's ENS (Ethereum Name Service) domain traditionaldreamfactory.eth is owned by the address owning TDF treasury. It will be owned by the DAO multisig.

Local community

One of our core values is to create value in our broader local community as well as for the Members and Nature. The key stakeholders for TDF being the town of Abela, which sits within the city hall of Santiago Do Cacem, but we are equally considering nearby towns with their own cultural pull, and capacity for cooperation.

Abela

TDF DAO is in close relationship with key stakeholders in the Abela community - notably the previous owner of the factory (Aviario), the local elected officials, the olive press, our favorite Café Matos in town. We have hosted the traditional St Antonio party with them, and the town has been extremely supportive. Our prospect contractors are locals, and we have worked with locals on a number of projects in the past.

Santiago Do Cacem

Santiago Do Cacem is an old castle town overlooking the ocean. It is a 15 min drive from Traditional Dream Factory, and this is where the city hall (or câmara) is located. The city hall's architecture department has been reviewing our architecture plans, and recently approved them. We are currently working on finalizing the engineering plans to submit to them with all the specialties (expected December 2022).

Montemor-o-novo

A nearby town to the north of TDF is Montemor-o-novo - where our architects - CRU Atelier - are located. CRU is part of an Integral Cooperative called MINGA, who is showing a powerful example of a functional cooperative model. Montemor is also home to Freixo do Meio - a ~500ha regenerative farm, on which is also implemented Growback, a syntropic farm inspired and supported by Ernst Gotsch. Another great example of a regenerative tourism project in the area is Gandum.

São Luís

Another regeneratively active town nearby to the South is São Luís, which is home to a host of regenerative projects such as: Centro Co•Re - an eco-versity, Espaço Nativa - a local cafe, coworking and marketplace, Dozero - a cheese and baker combo, Monte-Mimo - a regenerative farm who provided us with produce in 2021 and many more.

Tamera

Tamera is one of the longest standing ecovillages in Portugal (and in the world), and is located just 45 min south of TDF. We were blessed to host their water experts Thomas Lüdert and Jeff Anderson for a workshop on water retention landscapes during the 2021 re:build unconference at TDF. They visit us at TDF often!

Cross geographic communities

TDF has crafted relationships with a number of communities and projects with whom we wish to collaborate further in the future in order to accelerate the purpose of the OASA project - and of which TDF Members are also part of:
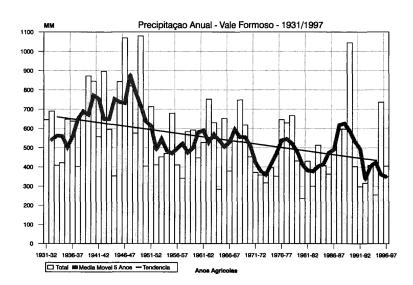- re:build - an gathering for regenerative village builders whose co-founders include several TDF DAO members (we also hosted re:build Portugal in September 2021).
- ReFi Spring - an events organization promoting the Regenerative Finance movement, and to which several members of TDF DAO have contributed (we also hosted ReFi Spring Portugal in May 2022).
- Re:Source - a regenerative village developer seeking to initiate its first village 60 min North of TDF.
- Agartha
- Cabin DAO
- W3ST
- Gaianet

If you have an idea for a possible collaboration, please email info@oasa.co.

TDF: a land guardian organization

TDF is deeply committed to OASA's Principles of Regeneration and Land Stewardship. Alentejo, the region in Portugal where TDF is located, is known to be a particularly dry area - and is at risk of desertification (see below the drop in precipitation observed in Vale Formoso, inland Portugal).

Precipitaçao Anual - Vale Formoso - 1931/1997

← A study on Desertification in Lower Alentejo Interior by the Municipality of Mértola shows that rainfall has decreased by about 40% for the period between 1931 and 1996.

The primary ecological imperative of the TDF project is to improve water retention, water reuse, rainwater harvesting, as well as reforesting and adding more diversity to the land.

TDF is working in cooperation with multiple agroforestry experts, running experiments on what forestry systems can be used in low precipitation areas to improve the soils, provide improved water absorption capabilities, and creating a food forest that sustains both human and ecosystem needs. The TDF DAO Land Circle (a delegation from the TDF DAO) is in charge of working with these experts to create the design proposals and permaculture maps, and work with Stewards and volunteers on the ground to implement it.

TDF is also monitoring its forestry growth through OFP, and aim to explore other technological collaborations that can improve the efficiency our regenerative efforts, while driving additional income streams to the project in the forms of ecosystem credits[18] and others. The regenerative work that must take place in a whole system approach to improving soil health and restoring water cycles is too wide in scope to be discussed in this whitepaper however. You can see some of the areas of focus and key metrics currently being worked on on the TDF Impact Map.

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[18] Read the *Regen Network Whitepaper* and *Open Forest Protocol Whitepaper*

Future developments

Grants

The current financial model doesn't take into account the possibility of getting grants for the social or ecological impact. However, the TDF DAO is actively pursuing these possibilities already, and should a grant be received, it would increase the capital available to the SPV to develop the Project.

Ecosystem Credits

OASA is partnering with [Open Forest Protocol](#) (OFP) to monitor its first reforestation project (0.7 ha) to experiment with tracking total biomass growth (carbon capture) and other metrics on chain, in order to create regenerative accounting metrics which in term could generate additional income streams for the Project.

OASA may partner with and implement more ReFi protocols in the future to optimize the growth mechanics of its underlying DAOs. All natural assets capitals grown and developed under the TDF lands will be owned by the TDF DAO. The management of those tokens will be done by the TDF DAO.

$TDF as Utility Fee Payment

We have seen that, besides possessing the token, there might be further utility costs to be afforded in order to stay in TDF facilities (mainly to cover food and operations).
The TDF DAO might decide to accept TDF tokens as a medium of exchange for paying such fees.

$TDF Community Proposals

> *DAOs are organizations able to upgrade themselves. - Anonymous*

The possibilities for future iterations are endless and unimaginable, our IRL and digital DAO is just being born and this is only the initial vision of what type of land, economy, culture and community to nurture. In any case, current and future Members are encouraged to propose and participate into the shaping of this economy.

Possible Failure of the OASA and its Projects

Construction costs could increase faster than expected, and bring the total cost above the total amounts raised.
- Mitigation: The token sale price curve can be updated by the DAO after each phase of funding and construction to take into consideration the context.
- End result: should all tokens be sold and not all construction be completed, the DAO can decide to either:
    - 1. Reduce its cost, and downscope the amount of construction.
    - 2. Sell additional tokens or otherwise dilute the use of the tokens in order to raise the additional funding.
    - 3. Operate with the space as-is, and slowly implement the roadmap over time using excess operation cash.

Community falling apart because of disagreement.
- Mitigation: Our model is based on rotating community members and stewards, which means that there is never a single group of people that hold the place. We also have procedures in place to deal with conflict.
- Should that happen, however, members are free to leave and can resell their tokens on the open market. If many members leave, the Project can lease out the occupancy to other individuals or entities.
- A Project can also be completely abandoned and replaced with a new Project. The new Project shall purchase the Tokens of the previous Project or negotiate with the previous DAO Project on a possible transition path. OASA would mediate such transition.

Physical damage to the properties
- Mitigation: Insurance and a maintenance fund is built into the operations. Buildings are built to be as sturdy as possible while using natural materials to limit our footprint.

Severe climate disturbance and continued destruction of the natural environment in mainland Portugal could in term render the entire peninsula into uninhabitable desert.
- While this is a possible scenario, we chose to believe that humans can and will change their destiny and align their economies to eventually support a thriving ecosystem.

- We do not see doomerism as a reasonable excuse for inaction. We are here to support a more beautiful world, and believe that by taking a step in the right direction we can inspire a critical mass that will prevent the worst.
- Mitigation: Our primary objectives are aligned with the creation of systems that can mitigate these impacts, and creating more resilience for ourselves, for our neighbors and for the local ecosystem that we steward.

Currency risks, and general crypto instability
- We recognize that holding cryptocurrencies can cause risk to the project.
- Mitigation: We will hold a balanced portfolio of currencies aimed at increasing stability of our treasury. For example, rather than solely holding Celo stablecoins, we will also hold USDC, EUR (in a bank), and other assets with a varied profile risk

Cyber security risks
- The smart contracts developed by Closer could get hacked, or any of the technological infrastructure we are using could be breached.
- Mitigation: we try to limit the attack surface and keep all assets in battle tested multisig wallets ([Safe](#)).

Legal risk
- Recognition of the token could become problematic in some jurisdictions.
- Mitigation: we spent a lot of resources upfront on creating the best legal structure we could, and we will continue to monitor how governments are making progress on recognizing blockchain systems. Ultimately, should token based systems become an impossibility, the project could convert its tokens into non token based access rights.

In case OASA fails entirely (i.e. all Projects have been dissolved), the Association will be dissolved. The dissolution of the Association would take place by a resolution taken by the General Meeting of the Association, and all the Members and DAO contributors would be informed about this step.

After the dissolution of the Association, any net profit will be distributed to organization(s) with a similar scope, serving the regenerative capacity of the planet.

Disclaimers

GENERAL INFORMATIONS

1. In order to fund the development of the TDF Project, the $TDF tokens (["$TDF"]) will be created on the Celo blockchain and will be sold to the public (the "Public Sale") .
2. $TDFs will be issued by a technical process that uses the blockchain technology. This is an open source IT protocol over which OASA Association has no rights, control or liability in terms of its development and operation. The $TDF distribution mechanism will be controlled by a smart contract; this involves a computer program that can be executed on the Celo network or on a blockchain network that is compatible with smart contract programming language.
3. $TDF is a token that will allow TDF DAO Members to access each land project run by the OASA Association and is qualified as a utility token.
4. The sale of $TDF is final: the $TDF is non-refundable and not redeemable.
5. As of the day of the Public Sale, $TDF does not have the legal qualification of a security pursuant to Swiss Law and is therefore not qualified as an Asset Token pursuant to the Guidelines issued on February 16, 2018 by Swiss Financial Market Supervisory Authority ("FINMA").
6. $TDF does not have a performance or a particular value outside the OASA ecosystem. $TDF shall therefore not be purchased or used for speculative or investment purposes.
7. As of the day of the Public Sale, the $TDF sale is currently not subject to the Federal Act on Stock Exchanges and Securities Trading Law and the Financial Market Infrastructure Act, which ensure that the sale of certain products or assets is subject to regulatory scrutiny for the investors' protection and may only be sold to investors provided that, *inter alia*, the respective documentation include all the proper disclosures and that the sale of investments.

KNOWLEDGE REQUIRED

1. Any purchaser of $TDF (the "Purchaser") shall understand and have significant experience of cryptocurrencies, blockchain systems and services, and understand the risks associated with the crowdsale as well as the mechanisms related to the use of cryptocurrencies (including the storage).

2. The Purchaser shall carefully review the respective Token Documentation so as to understand the risks, costs and benefits associated with the purchase, storage and use of $TDFs.

RISKS

1. Acquiring $TDF and storing them involves various risks, in particular (but not limited to) the risk that OASA Association may not be able to launch its platform and/or its operations, to develop or exploit its blockchain and/or to provide the services to which the $TDF relates or is forced (in particular due to changes in the legal environment and/or issuance of new laws or regulations and/or new leading interpretation of current legal framework and/or case law, which might also have a retroactive effect) to stop its operations or change its business model. Therefore, and prior to acquiring $TDF, any user should carefully consider the risks, costs and benefits of acquiring $TDF in the context of the Public Sale and, if necessary, obtain independent legal and tax advice in this regard.
2. Any interested person who is not in the position to accept or to understand the risks associated with the activity (including the risks related to the non-development of the OASA project) or any other risks as indicated herein or in the Token Documentation) shall not acquire the $TDFs.

NO SECURITY

1. $TDFs do not confer any direct or indirect right to any land directly or indirectly owned by OASA Association including income rights, and, in particular, do not grant any right to dividends or interests or rents.
2. $TDF is not proof of ownership of any assets belonging directly or indirectly to the OASA Association.
3. Pursuant to the FINMA Guidelines and current practice, the $TDF is a utility token which can be used only against the services offered by the OASA Association and is not intended to be used as an investment.
4. The offering of $TDF on a trading platform is done to allow additional users to get access to Projects in the OASA Association and not for speculative purposes and does not change the legal qualification of the token as a utility token.

IMPORTANT INFORMATION AND DISCLAIMER

1. By subscribing $TDF, the OASA Association assumes no liability or responsibility for any loss or damage that would result from or relate to the user of $TDF failure to

receive (or to timely receive) the $TDFs or to the incapacity to use $TDFs, as well as for any failure or malfunction of the respective smart contract, except in case of intentional misconduct or gross negligence directly attributable to the Association.

2. $TDF is based on the Ethereum protocol. Any malfunction, unplanned function or unexpected operation of the Ethereum protocol may cause the $TDF to malfunction or operate in a way that is not expected. Moreover, the native Ethereum protocol account unit may itself lose value in a similar way to $TDFs, and also in other ways. The OASA Association assumes no liability or responsibility in this respect.

3. The OASA Association assumes no liability or responsibility whatsoever for any loss of $TDF or situations making it impossible to access $TDF, which may result from any actions or omissions of the user of $TDF, as well as in case of hacker attacks.

USER REPRESENTATIONS AND WARRANTIES

1. By participating in the Public Sale and by purchasing $TDFs the Purchaser confirms that he/she/it:
    ● has read and understood this whitepaper;
    ● has sufficient knowledge about the nature of the cryptographic tokens and has significant experience with, and functional understanding of, the usage and intricacies of dealing with cryptographic tokens, cryptocurrencies and blockchain-based systems and services;
    ● has fully understood and accepts the risks connected with the purchase of the Token outlined in the Token Documentation, including those related to possible changes in the legal environment;
    ● is familiar with all related regulations, in particular (but not limited to) in the specific jurisdiction in which the Purchaser is based, and has received competent advice that participating to digital token or currencies offerings and purchasing cryptographic tokens is not prohibited, restricted or subject to additional conditions of any kind;
    ● is entitled to purchase $TDFs in the Public Sale without requiring any local authorization and is in compliance with the local, state, and national laws and regulations when purchasing;
    ● is authorized and has full power to purchase $TDF;
    ● is not a U.S. citizen, resident or entity (a "US Person") nor is the Purchaser purchasing $TDFs on behalf of a US Person;
    ● the purchase and storage of the Token will not constitute a violation or breach of any applicable law by the Purchaser, in particular in his country of residence or citizenship;

- purchases $TDF because he/she/it wishes to participate to the OASA Association;
- Is required to share their address for purchasing $TDF, for taxation purposes of the Association; *and*
- is not purchasing $TDF for the purpose of speculative investment or usage.

GOVERNING LAW – ARBITRATION

1. The Token Documentation, the OASA Association and the purchase of the $TDFs shall be governed by and construed in accordance with the substantive laws of Switzerland without regard to the conflicts of law rules and without regard to the rules of the Vienna Convention on the International Sale of Goods dated 11 April 1980.

2. Any dispute, controversy or claim arising out of or in connection with the Token Documentation, the Public Sale and/or the purchase of the $TDFs, shall be finally settled in accordance with the Swiss Rules of International Arbitration of the Swiss Chambers' Arbitration Institution in force on the date on which the Notice of Arbitration is submitted in accordance with these Rules. The number of arbitrators shall be 3 (three), the arbitrators to be appointed in accordance with the said Rules. The seat of the arbitration shall be Lugano, Switzerland. The language of the arbitration shall be English.

Date of issuance of this whitepaper: November 17, 2022.

Bea, Gus, Dalibor, Sam, Ani, Charlie, Cedric, and the entire team at OASA and TDF ❤️

Appendix A: The TDF Commons Market Maker Math

Having set some initial conditions to our Token parameters, like the Total Initial Supply at the time of launching the smart contract, the initial price, the asymptote price at 420, and reaching the price of 300 after 2400-2600 tokens sold. The policies regulating the $TDF token price variation according to the numbers of tokens we'll dynamically mint and sell will be governed by the Rational Function:

$$P(S) \; = \; c \; + \frac{a}{S^2} + \frac{b}{S^3}$$

Equation 1. TDF Price in TDF CMM

where:

$P(S) = $ Price as a Supply function;

S = Supply at current state

S_0 = Initial Supply = Tokens Sold in Seed & Pre-Build phases (1.661) + Total Sweat Tokens (3.700) = 5.381 $TDF.

$P_0 = \; Initial \; price \; at \; 222 \; €/\$TDF$

$(S_1, P_1) \; = \; (8000, 300)$ Which is basically a design criteria.

We can then find $a, \; b, \; and \; c$ to fulfill the above criteria where.

$$\forall (S > S_0) \, , \; a \; = \; 797787.7, \; b = -1351.77, \; C \; = \; 420$$

$$\forall (S > S_0) \, , \; a \; = \; -11680057722, \; b \; = \; 32000461777723, \; C \; = \; 420$$

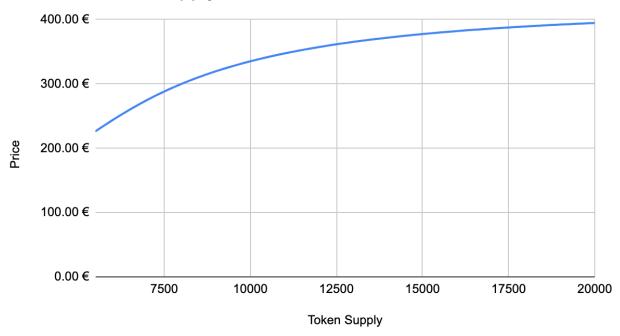Therefore, our bonding curve price is shaped like:

Price Vs Token Supply

Figure 1 - $TDF Price Curve with Initial Variables as S_0 = 5.381, S_0=222€, a = -11680057722, b = 32000461777723, c= 420.

As Price multiplied by one token gives the money entering in the Treasury for that single token, in order to calculate the total of money ΔR when a user needs to pay for buying a total of ΔS $TDF tokens, there's no $Price \ * \ number \ of \ tokens$ calculation that would give us the needed investment from a purchaser to buy such ΔS $TDF tokens so we just need to integrate Equation 1 into the incremental step of the purchase, which means from S to $S + \Delta S$, so ΔR is:

$$\Delta R \ = \int\limits_{Sn}^{S(n+1)} (c \ + \frac{a}{S^2} + \frac{b}{S^3}) dS$$

$$\Delta R = c \ * \ \Delta S \ + \ \frac{b+2*a*S_n}{2*S_n^2} - \frac{b+2*a*S_{n+1}}{2*S_{n+1}^2}$$

$$Where \ \Delta S = S_{n+1} - S_n$$

The estimated money entering in TDF's treasury will of course depend of the number of tokens sold, and also on how these prices will be actually increasing:
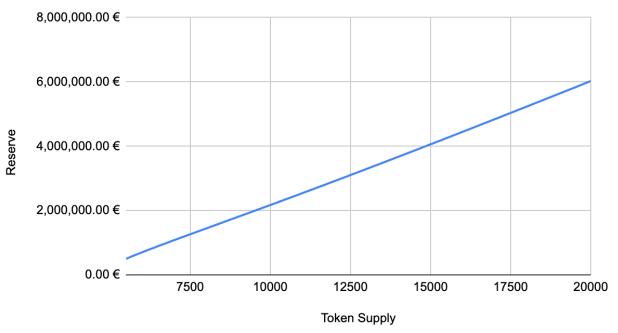
Treasury Raised vs. Token Supply

Figure 2 - TDF Treasury increase according to the number of TDF sold.