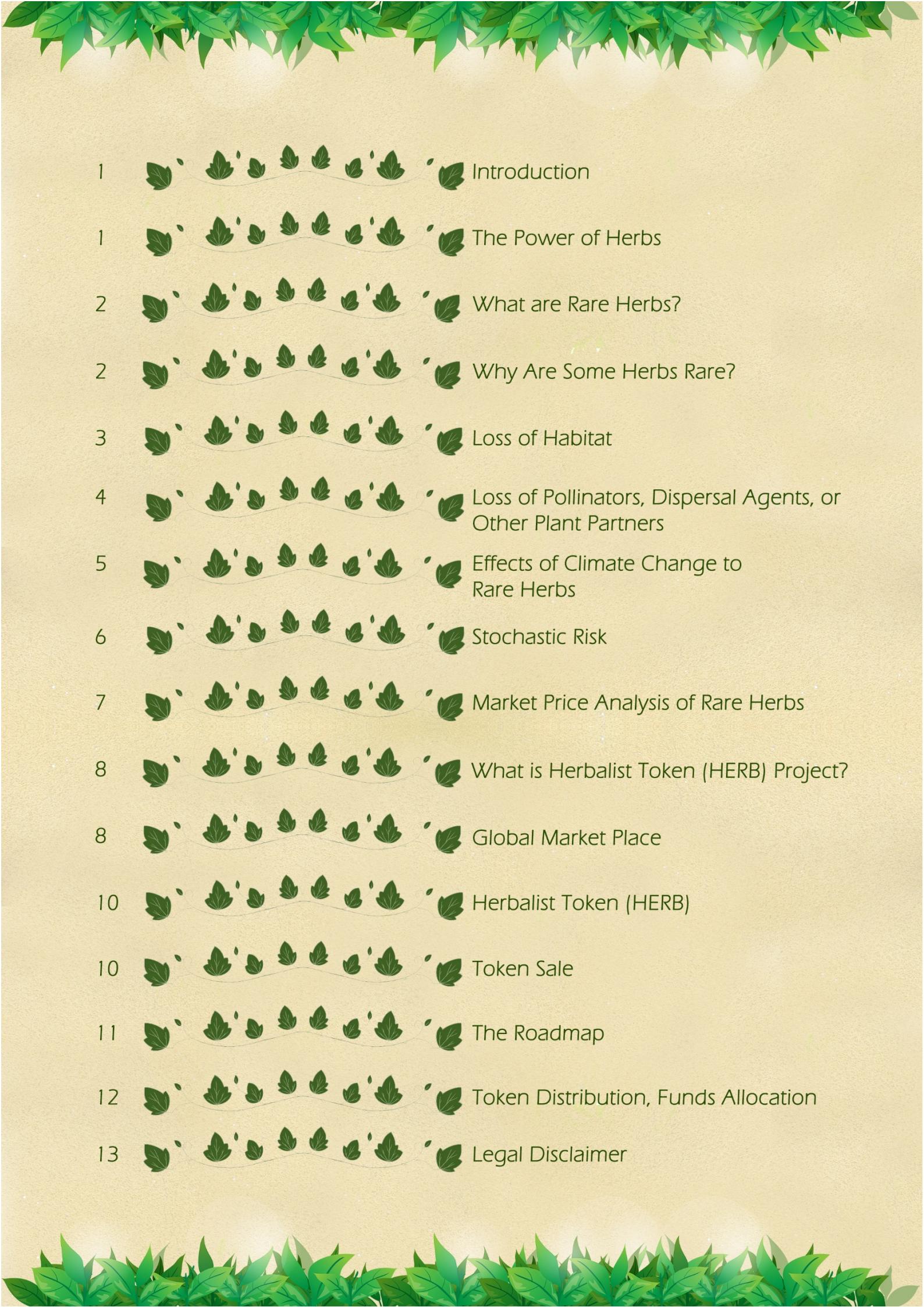




Natural Living Powered by Blockchain

GREENPAPER

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Introduction

10 years ago, Bitcoin was founded by Satoshi Nakamoto and a team of developers. Many people did not foresee that Bitcoin would revolutionize the world as it did today. The idea behind Bitcoin was to eliminate the central authorities such as banks with a new peer to peer electronic cash system. The system was elegant and transparent, every transaction made in the system is recorded in the blocks and anyone could track them down, besides, it was not revealing anyone's identity since the addresses were not coupled with any real people. These features attracted more people in time and in the recent years many blockchain systems have emerged. Nowadays, many experts state that blockchain's current situation is similar to World Wide Web's first days.

4 years ago, talented people created Ethereum which united the contracts with Blockchain and smart contracts were born. That became a gateway for developers to create their own tokens and smart contracts. Today, a lot of cryptocurrencies are using Ethereum platform and that proves Ethereum help blockchains develop in a good way.

Even though the Blockchain and cryptocurrencies represent the future, they need to touch people's daily life. If they cannot manage that they will be traded in cryptocurrency markets for a while and they people will forget them in a few years. That is what Herbalist team desired, creating a real use case for cryptocurrencies and help them revolutionize the world into a better place. In this greenpaper, we will explain how Herbalist Token Project unite the power of herbs with the latest technology.

Before diving into what Herbalist Token Project is, we will share some important information about rare herbs.

The Power of Herbs

For centuries, people have been using herbs for medicinal and healing purposes. Before modern medicine, herbalists have been creating cures from herbs. They do more than simply adding flavor and color to our favorite dishes; their healing and restorative powers are impressive. Even after medicinal procedures improved, the key ingredients of the most modern medications are still herbs. But after being exposed to countless side effects of modern medications, people are now going back to traditional use of herbs more and more every day.

What Are Rare Herbs?

Rare Herbs may be scarce because the total population of the species may have just a few individuals, or be restricted to a narrow geographic range, or both. Some rare herbs occur sparsely over a broad area. Other rare herbs have many individuals, but these are crowded into a tiny area; in some cases, a single county or canyon. A third kind of rare herbs are those with both few individuals and a narrow geographic range: these are the very rarest plants.

The status assessments of rare herbs are based on the best available information and consider a variety of factors. These factors are,

- Total number and condition of occurrences (e.g., populations)
- Population size
- Range extent and area of occupancy
- Short-term and long-term trends in the above factors
- Scope, severity, and immediacy of threats
- Number of protected and managed occurrences
- Intrinsic vulnerability
- Environmental specificity

Why Are Some Herbs Rare?

Some plants are naturally rare, and the cause may be a mystery. These rare plants are not necessarily in danger of extinction. If their habitat is secure and they continue to reproduce in the wild, no intervention is needed. However, botanists do agree that rare plants are more likely to become extinct than more common species. There are particular life history characteristics recognized by scientists as increasing a plant species' risk of extinction. A few examples of these natural risk factors are:

- Specialization to a particular soil or rock substrate, which may be patchy and/or limited in area
- Population isolation
- Specific mutualistic relationships with other organisms, such as pollinators, dispersers, or fungal partners
- Genetic self-incompatibility, for instance dioeciousness (where an individual plant has only one flower gender, so two plants at a minimum - a male and a female - are required for sexual reproduction to occur)

- Gravity or ant dispersed seed: causes difficulty in colonizing fragmented habitat, since seeds may not be able to move far enough to reach the next suitable habitat patch

Other plants that were formerly more common have become rare due to changes in their environment. These changes are often brought on directly or indirectly by people's patterns of settlement, transportation, recreation, and use of natural resources. We can help rare species recover and even thrive sometimes by making changes in our own behaviors. For most species, rarity results from some combination of anthropogenic (human-induced) and evolutionary ("natural") factors rather than a single cause.

Human causes of rarity, direct and indirect, are identifiable for many rare plants. The more common ones are:

- Loss of habitat, which may already be limited by natural specialization
- Loss of pollinators, dispersal agents, or other plant partners
- Collecting for horticulture, medicinal uses, or science
- Introduction of competitors, pathogens, and pests: usually not native, and therefore not having co-evolved with our native plants

The following further discussion of the causes of rarity will move back and forth between natural and human-caused reasons for rarity, as they are so intertwined in nature.

Loss of Habitat

Many scientists make a point of distinguishing between species that naturally occur in small, isolated populations and those that have been fragmented and diminished by human activity. Plant species that were once widespread, interbreeding, and diverse are most sensitive to declines in genetic variation associated with restrictions in range or population size. Loss of habitat prohibits buildup of population numbers from periodic lows. A habitat or population fragment is a smaller target for incoming seeds being dispersed from another habitat patch; therefore, recolonization may be problematic.

Some plants are naturally restricted to rare, patchy habitats, such as limestone or serpentine rock outcrops, bals, and vernal pools. From a conservation perspective, these are the easiest habitats to model, map, and survey for plants, and often the easiest to protect. Occurrences of plants confined to these habitats can be predicted by the distribution of the habitats. The habitats can be seen and outlined on an aerial photo or soil map of suitable resolution. However, these patchy habitats, especially if the patches are small, are very susceptible to



careless or intentional destruction, especially if the patches contain some economically valuable commodity (such as minerals or landscape rock), or are embedded in an economically valuable matrix (such as woodland habitat that is attractive for housing). In addition, a too-tight focus on habitat patches, leaving out surrounding matrix habitat when planning for species conservation, can lead to loss of essential ecological relationships and, ultimately, failure to conserve the target species. For example, andrenid bees, critical pollinators of California vernal pool genera such as *Downingia* and *Limnanthes*, nest in the upland matrix surrounding the pools. A conservation plan that overlooks this relationship is likely to be unsuccessful.

The most common cause of plant habitat loss and subsequent plant rarity and endangerment is conversion of native plant habitat to cities, farms, roads, and regulated-flow river systems and reservoirs. Human settlement has also changed plant habitats through fire suppression, introduction of aggressive weeds, recreational use, and natural resource extraction.

Loss of Pollinators, Dispersal Agents, or Other Plant Partners

About one-fifth of all pollen-producing plants have pollen light enough to float on wind or water. Noteworthy members of this group are conifers, oaks, grasses, and sagebrush, typical "hay fever" culprits. The rest have heavier pollen, and must rely on animals to move pollen from one flower to the next. Insects (bees, flies, beetles, butterflies, moths, and wasps) do most animal pollination of native plants, but some plants rely on birds or bats for pollen transfer.

Water, wind, animals, or mechanical means disperse fruits and seeds. The purpose of any dispersal system is to get seeds to a suitable patch of habitat that is not already occupied. Timing is critical: the dispersal agent must be available at the time the seeds are ready for dispersal. Distance among habitat patches is also critical. If the distance to the next habitat patch exceeds the dispersal range of the species, that habitat patch has no way to be recolonized should the local population be lost through disease, predation, or local natural catastrophe.

Water dispersal is confined to aquatic and shoreline plants. Premature drying of creek beds, water diversions, channelization, and reservoir drawdowns can interfere with water dispersal of riparian and aquatic plants.

Wind dispersed species are those with winged outgrowths or tufts of hair, such as papoose members of the sunflower family, as well as milkweeds, willow-herbs, willows, cottonwoods, and maples, conifers; and, a few species with no other adaptation other than being very tiny and light, including most orchids.





Those that are light and can travel a long way are adapted to exploit patchy, ephemeral habitats. These include many early successional species. Lightweight orchid seeds disperse widely so that a small fraction of them will find a suitable patch of habitat with just the right conditions.

Animal dispersed seeds stick to the animal in some way, with hooks, mucilage, or mud from wet habitats, or are eaten and passed through the digestive system. Seeds that are eaten include berries, nuts, or those with a fleshy aril or elaiosome that offers some nutritive value to the dispersing creature. Berries and nuts, since they are relatively large, tend to be used and dispersed by larger animals (birds and mammals) with longer dispersal distances. Seeds with elaiosomes, such as in trilliums and violets, are dispersed by ants. This limits the dispersal distance of the seeds and colonies of plants may become isolated by large expanses of unsuitable habitat.

The importance of mycorrhizal associations (plants with roots connected to fungal hyphae to extend their nutrient-gathering ability) to seedling germination and survival has been documented for a wide variety of habitats, including grasslands, sagebrush scrub, wetlands, tallgrass prairie, as well as forests. Mycorrhizal fungi are sensitive to soil disturbance, solar heating of soil, and pesticides. The mycorrhizal flora is currently susceptible to wholesale change through air-borne nitrogen enrichment of the soil that is occurring worldwide. Species dependent on specific mycorrhizal associations, such as terrestrial orchids and moonworts (*Botrychium* species) may be at special risk because of the vulnerability of their fungus partners to environmental changes.

Effects of Climate Change to Rare Herbs

Climates have been in flux as far back as geologic evidence can be read. Paleobotanical evidence shows that vegetation has migrated and evolved repeatedly in response to climate change. This trend seems likely to continue. The questions seem to be at what rate and with what influence by human activity. Ecologists currently agree that, in the future as in the past, vegetation will not shift or migrate as intact biomes or communities. Individual species have different migration rates and different responses and will probably form new assemblages not now seen.

Scientists suggest that mycorrhizal migration rates may limit vascular plant migration rates. If this is the case, species dependent on a single mycorrhizal fungus, or to both a fungus and a woody host plant (as for sugar stick or phantom





orchid), would be at a disadvantage in adapting rapidly to climate change. Successful adaptive migration also depends on the presence of continuous migration corridors of friendly habitat. This is likely to be a problem for many species, but especially for those already limited to isolated, patchy habitats and dependent on specialized pollinators and dispersal agents.

Global warming, linked to human-induced increases in CO₂ and other "greenhouse gases" is a scenario addressed by plant conservationist David Given:

"A vertical ascent of around 500 meters could compensate for a 3° C rise in average temperature, but because available land area decreases with increasing altitude, species with large habitat area requirements may become extinct. In any case, associations of species will be squeezed into decreasing areas as they ascend."

Since plant species with large habitat requirements tend to be wind- pollinated (such as conifer trees and prairie grasses), this would place many widespread woody plants and graminoids currently limited to middle and upper montane zones at risk. Some alpine species would simply "wink out" under a global warming scenario, as there would be no higher elevation habitat nearby to which they could migrate.

Stochastic Risk

Rarity itself leads to an increased risk of endangerment and extinction, because rare plants with few and small populations are less able to recover from random events that wipe out individuals or entire populations. This kind of risk is called "stochastic risk".

For example, the small size of the only known population of showy stickseed, *Hackelia venusta*, is a major barrier to its recovery. The small number of individuals (roughly 600 plants) remaining in the sole population located in Tumwater Canyon makes *H. venusta* vulnerable to extinction due to random events such as slope failure (mass wasting or surface erosion) or drought. A single random environmental event could extirpate a substantial portion or all of the remaining individuals of this species, leading to extinction.

Rare plants fall into several general categories of risk:

- Those that appear to be doing just fine, regardless of their rarity
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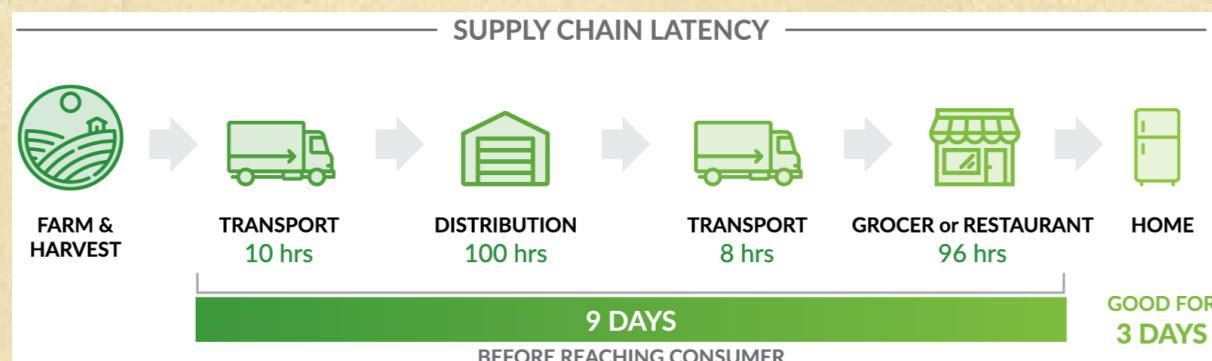
- Those that are in trouble for obvious human-caused reasons
- Those that are in trouble for obvious natural causes
- Those that are declining for no obvious reason

The hardest work of rare plant conservation comes with the last group, where the natural causes of rarity and the human causes of rarity must be teased apart before it is possible to find conservation solutions.

Market Price Analysis of Rare Herbs

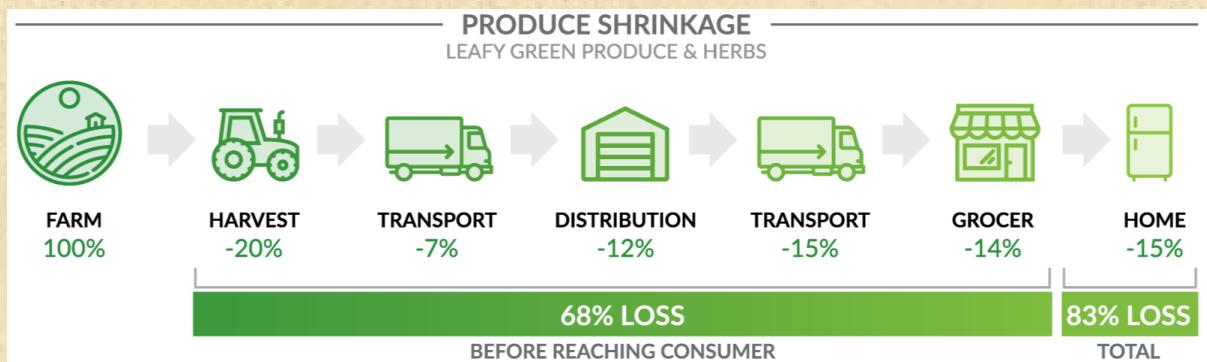
One of the greatest challenges in the agriculture industry is supply chain. The supply of standard produce is greatly impacted by our current supply chain. In an article, Forbes magazine states that the big challenge is we're dealing with an archaic distribution system — "We've got farmer, transportation, manufacturer, distributor, broker, and realtor. It's a super obsolete 20th century distribution model." This model needs to change, and this is where our Herbalist Token Project comes into play.

Let's look at the current supply chain and its impact. Below is a standard supply chain. As we can expect and as Forbes noted, there are many a lot of parties involved.



Note that with each phase of the distribution model, huge amounts of time is wasted. Not only does this mean degrading quality of produce, but every time produce is transported or stored, embedded costs increase as well. Consider the cost of fuel, labor, distribution markups, and maintenance. All these are factors in the price we pay for produce at the grocery and produce that's severely lacking in freshness.

Let's analyze this standard supply chain in terms of shrinkage of Leafy Green Produce and Herbs.



As you can see, a shocking 68% is lost before it reaches our home. And another 15% is lost in our home. Total of 83% is lost until it reaches our home. Let's also consider the actual quality of the produce you are eating. From the moment it was picked, it began to decay and lose its freshness. Even if appearance-wise it may look fresh, nutrients are diminishing every day in the produce we buy.

As we mentioned, with each phase of distribution model, huge amounts of time is wasted and the product decays a great deal. Same thing happens when it comes to the price of the product. Because of many intermediaries from producer to consumer, the prices increase in unimaginable levels. This is the standard case for produce products. When we analyze the price change of rare herbs, the price increases to exorbitant levels because of the scarcity of the products.

Let's give an example of Matsutake Mushroom. The farmers in Japan sell their product of Matsutake Mushroom to an intermediary for \$100 per kg. Because of the current supply chain, this mushroom is sold at €4000 per kg in Germany. The price increases to more than 40 times of the original cost.

Herbalist Token Project offers a new platform to cut the costs and give farmers an opportunity to sell their products directly to the consumers.

What is Herbalist Token (HERB) Project?

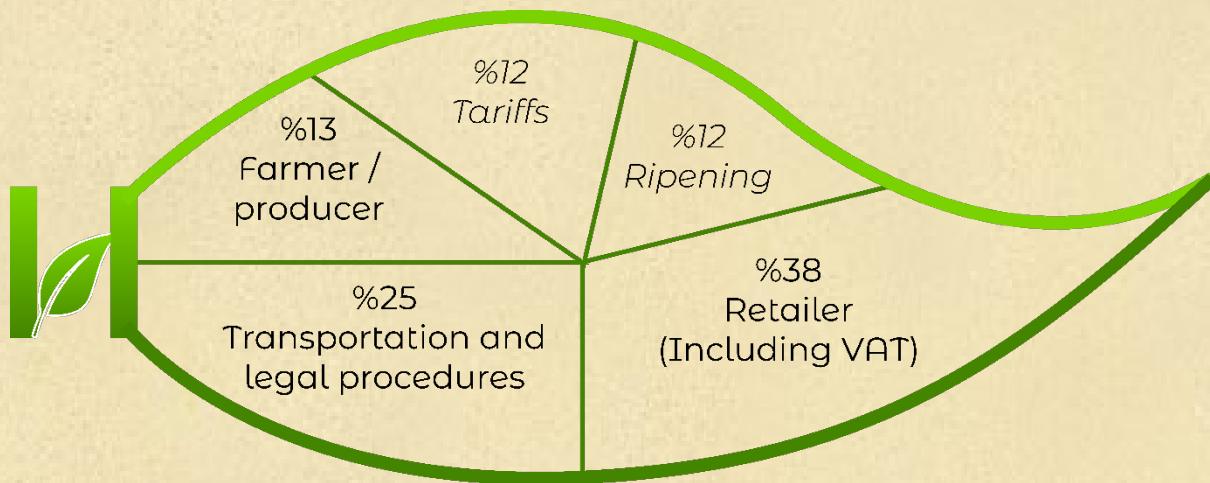
Global Marketplace

Today, rare herb growers and collectors are struggling to find a convenient marketplace to sell their product around the world. Most of the rare herbs have interested parties and buyers around the globe but most of the farmers can only sell their products locally because there is no marketplace to bring them together. Rare herbs grow in very different parts of the world and these areas are usually rural areas and sometimes they are in developing countries.

As a result, the growers sell their product to intermediaries and then the intermediaries can sell the product to buyers in foreign countries. This situation

increases the prices and affects the customers, at the same time it causes the farmers to earn less money for their product.

Additionally, corporates and big companies overcharge consumers by cornering the market and creating monopolies. This creates an enormous wealth gap between corporate owners and hardworking farmers.



As you can see, a farmer is able to get only %13 of the money paid for a produce while the consumer spends most of his money to services which does not add any value to the produce. Herbalist Token Project is going to solve this problem by building a blockchain integrated global marketplace that will bring the farmers and the buyers together. In our platform, any farmer is going to be able list their products and find buyers around the globe easily and quickly. Our platform will

- eliminate the intermediaries,
- cut the unnecessary costs,
- increase the profit of the growers,
- decrease the price of the product for the customers and,
- make the rare herbs more accessible to everyone.

On our Global Rare Herbs Marketplace, users can buy and sell products securely and reliably. Sellers can create their own stores and build their reputation through review points given by customers. Additionally, sellers can also attach pictures and videos to their listings to show the quality of their products. In the meantime, the consumers will enjoy cheaper prices and fresher products with our platform. Along with these, our platform will be designed to protect both parties. Customers' payment will be escrowed in our platform and it will be



transferred to the seller once the desired product delivered to the customer. Therefore, it will also add an extra layer of security for the users.

Since the price gap of rare herbs' sales in current supply chain is huge, our platform will mainly focus on rare herb sales, but we also encourage all kinds of produce and herb farmers to market their products on our platform to decrease prices globally.

In order to decrease the costs even more, we are also going to make partnerships with local and global shipping and logistic companies around the world for the sales processed through our platform. Sellers on our platform will be able to ship their products at cheaper rates.

Herbalist Token (HERB)

Herbalist Token (HERB) is an Ethereum Blockchain based ERC-20 token that will be used in payments processed through our platform. Our goal is to create a global marketplace with a single cryptocurrency payment option to remove currency conversion costs, reach farmers and customers beyond country borders and decrease the overall costs even more.

- **Contract Address:** 0x04A020325024F130988782bd5276e53595e8d16E
- **Symbol:** HERB
- **Decimal:** 8
- **Total Supply:** 9,500,000,000

Token Sale

Herbalist Token (HERB) ICO sales will start on November 6th, 2018 at 11:00 UTC and end on November 13th, 2018 at 11:00 UTC.

In order to buy HERB tokens during the token sale, you will need to send the required amount of ETH to the address that will be published on our official website of www.herbalisttoken.com. In response to the payment, HERB tokens will be sent to the same wallet address you sent your ETH from.

Please DO NOT send any funds to the Contract Address. Send your funds only to the ETH address specified on our website.



The Roadmap

May 2018

The origin of Rare Herbs Marketplace and Herbalist Token Idea

June 2018

Team Building

July 2018

Attraction of Advisors

September 2018

Rare Herbs Database Creation Started

October 2018

Herbalist Token Website is created

November 6th, 2018 Herbalist Token (HERB) ICO Start

November 13th, 2018 Herbalist Token (HERB) ICO End

November 19th, 2018 Rare Herbs Volunteer Program Start

November 2018

Exchange Listings & Partnerships with Shipping Companies

December 2018

Further Exchange Listings & Partnerships

January 2019

Rare Herbs Global Marketplace Website Launch

February 2019

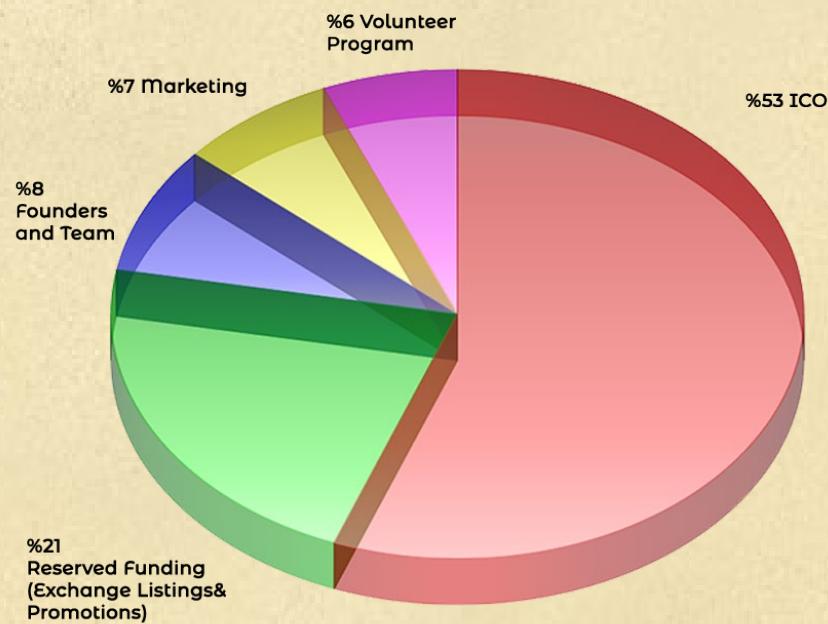
Consumer Awareness Webinars Start on YouTube Channel

March 2019

Partnerships with Universities Around The World

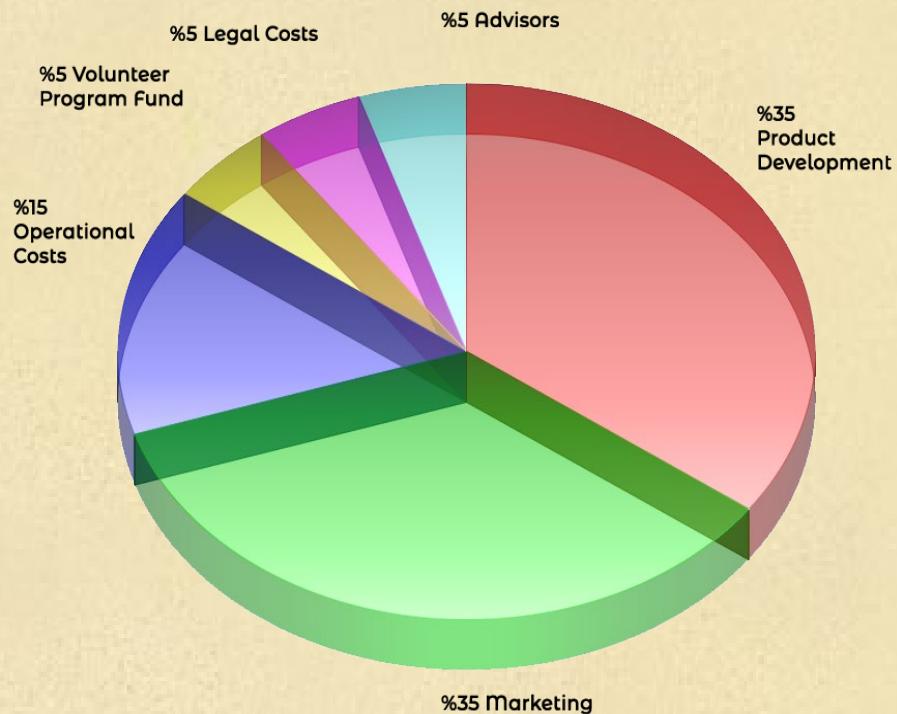
Token Distribution

Herbalist Tokens will be distributed as specified in the chart.



Funds Allocation

The funds that will be raised in the ICO will be allocated according to plan showed in the chart below.





Legal Disclaimer

a) Token Sale Restrictions

If the laws of the country you reside in involve certain requirements for you, as a potential token holder, or for the process of tokens acquisition and exchange, we recommend you consult the lawyers with the relevant practice in your jurisdiction and make a decision about the tokens based on their recommendation. Besides, we would like to bring to your notice that due to technical organization of token issuing and exchange, we do not collect, store, or make use of the potential token holders' personal data, and, thus, we cannot control what jurisdiction they belong to and whether the laws of this jurisdiction are violated. As a result of such circumstances, the responsibility for exchanging tokens in your jurisdiction rests with you, as the token holder.

b) Risks

You acknowledge and agree that there are numerous risks associated with purchasing HERB, holding HERB, and using HERB for participation in Herbalist Token Project.

(1) Uncertain Regulations and Enforcement Actions

The regulatory status of HERB and distributed ledger technology is unclear or unsettled in many jurisdictions. It is impossible to predict how, when or whether regulatory agencies may apply existing regulations or create new regulations with respect to such technology and its applications, including HERB and/or Herbalist Token Project. Regulatory actions could negatively impact HERB and/or Herbalist Token Project in various ways. The Project (or its affiliates) may cease operations in a jurisdiction in the event that regulatory actions, or changes to law or regulation, make it illegal to operate in such jurisdiction, or commercially undesirable to obtain the necessary regulatory approval(s) to operate in such jurisdiction. After consulting with a wide range of legal advisors and continuous analysis of the development and legal structure of virtual currencies, the Project will apply a cautious approach towards the sale of HERB. Therefore, for the crowdsale, the Project may constantly adjust the sale strategy in order to avoid relevant legal risks as much as possible.

(2) Competitors

It is possible that alternative networks could be established that utilize the same or similar code and protocol underlying HERB and attempt to recreate similar facilities. The project may be required to compete with these alternative networks, which could negatively impact Herbalist Token Project.

(3) Failure to develop

There is the risk that the development of HERB will not be executed or implemented as planned, for a variety of reasons, including without limitation the event of a decline in the prices of any digital asset, virtual currency or HERB, unforeseen technical difficulties, and shortage of development funds for activities.





(4) Security weaknesses

Hackers or other malicious groups or organizations may attempt to interfere with Herbalist Token Project in a variety of ways, including, but not limited to, malware attacks, denial of service attacks, consensus-based attacks, Sybil attacks, smurfing and spoofing. Furthermore, there is a risk that a third party or a member of the project or its affiliates may intentionally or unintentionally introduce weaknesses into the core infrastructure of HERB which could negatively affect Herbalist Token Project.

(5) Other risks

In addition to the aforementioned risks, there are other risks associated with your purchase, holding and use of HERB, including those that the Project cannot anticipate. Such risks may further materialize as unanticipated variations or combinations of the aforementioned risks. You should conduct full due diligence on the Project, its affiliates and the Herbalist Token Project team, as well as understand the overall framework and vision for Herbalist Token Project prior to purchasing HERB.

Herbalist Token Project on Social Media

- **Official Website**
www.herbalisttoken.com
 - **Facebook**
<https://www.facebook.com/groups/193763838199362/>
 - **Twitter**
<https://twitter.com/herbalistoken>
 - **Youtube**
<https://www.youtube.com/channel/UCMUXvSWSxdXwjsD54oV6pRA>
 - **Reddit**
https://www.reddit.com/user/Herbalist_Token
 - **Telegram Chat**
https://t.me/Herbalist_Token
 - **Telegram Announcements**
https://t.me/Herbalist_Announcements
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