

# Clima4Future

WHITEPAPER

Our contribution to the green planet.



ClimaCoin

# WHITEPAPER - CONTENT

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# 1. SUMMARY

The company Clima4Future was founded in October 2020. The vision of the founder Helga Holzwarth (80) from Althütte in Germany is the promotion of nature and social projects that have a positive effect against climate change.

Her concern is to take an important step towards preserving the earth for our grandchildren and their children's children during your lifetime. Her vision and her work should continue to exist through Clima4Future.

The primary goal is to jointly promote CO2 reduction and create a win-win situation for people, companies and the environment.

The digital currency, the ClimaCoin, was created for this purpose. The ClimaCoin is a digital token with a green footprint. The income generated by the sale of the ClimaCoin supports climate-related projects. Through this funding, Clima4Future receives CO2 certificates. By depositing these CO2 certificates, further ClimaCoins are created, which in turn can then be offered for sale.

Even if the purchase of the ClimaCoin promotes climate-related projects, it can still be traded on the stock exchange. The price there is determined by the market.

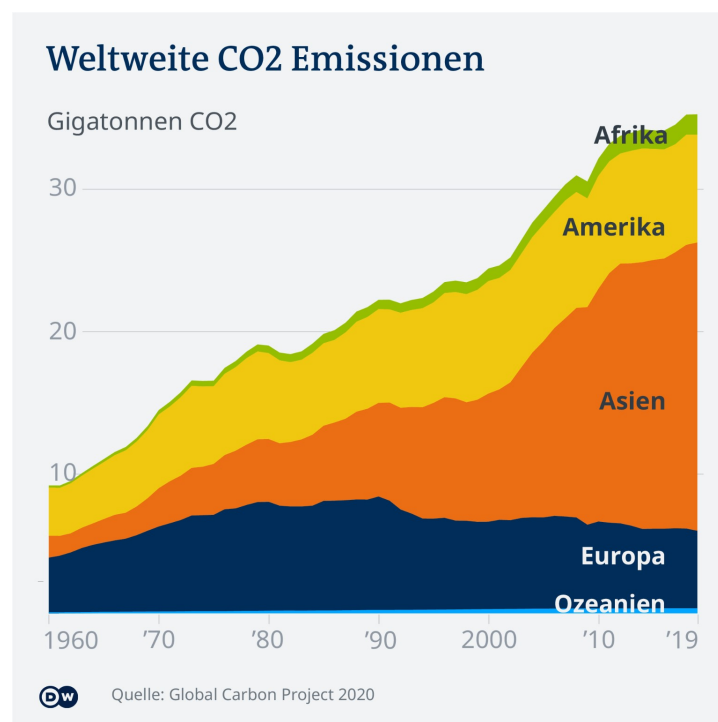
Clima4Future is working on projects to use the ClimaCoin in a targeted manner at selected companies and retailers (stationary & online).

## 2. INTRODUCTION CLIMATE CHANGE

Climate change is present worldwide. Mankind is already feeling this firsthand through e.g. persistent droughts, floods, storm disasters, melting glaciers.

The International Energy Agencies report that energy-related carbon dioxide emissions in 2021 were the highest ever, rising by 6%.

36.3 billion tons of energy-related CO<sub>2</sub> equivalents were emitted worldwide. A historic record high. Since the 1950s, the amount of CO<sub>2</sub> has increased by an average of four times every year.

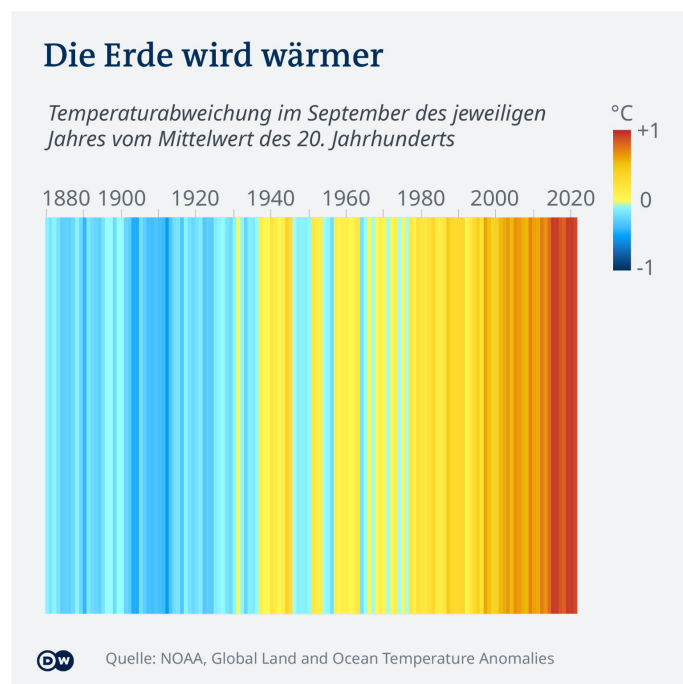




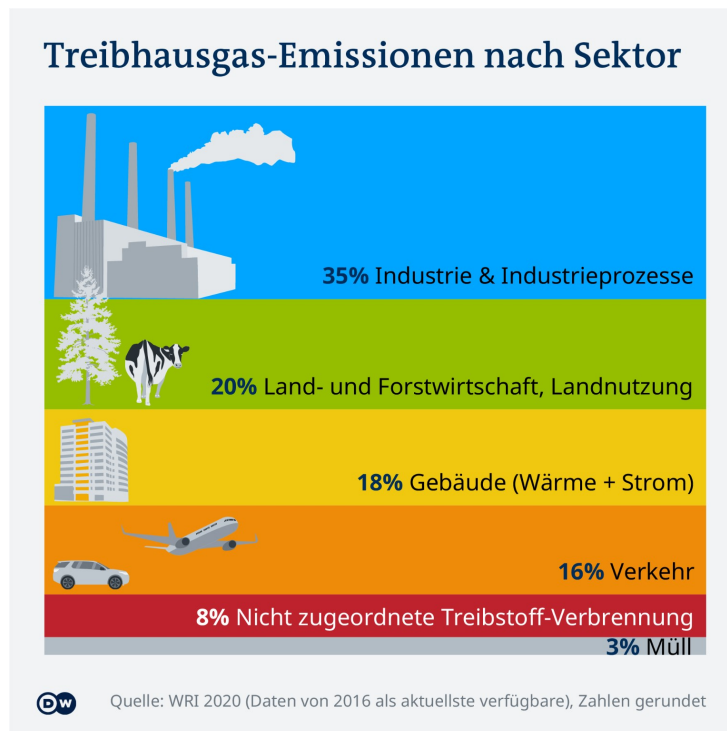
Numerous studies carried out worldwide show that the greenhouse gases produced by humans are the cause of the current climate change.

The top 10 countries with a high volume of CO<sub>2</sub> emissions are: China (27.92%), USA (14.5%), India (7.18%), Russia (4.61%), Japan (3, 04%), Iran (2.14%), Germany (1.93%), Indonesia (1.69%), Korea (1.69%), Saudi Arabia (1.6%).

The increase in CO<sub>2</sub> emissions worldwide and the associated increase in temperature has dangerous consequences for people, animals and nature.



The reasons for this increase are manifold. The main reasons are energy production, transport, industry, agriculture and waste and that with a quadrupling of the population in the last 100 years.



That is why people and environmental organizations around the world are demanding careful action, more sustainability in production and renaturation to protect flora and fauna and the well-being of mankind.

There is only a chance to stop and reverse the negative development if industry, politics and every single person does something to combat climate change.

Climate change, climate protection and climate neutrality are THE key issues of the future.

### **3. CLIMATE PROTECTION CLIMA4FUTURE**

The company Clima4Future was founded to make a valuable contribution to combating climate change. Only together will we be able to give our children's children a planet worth living on.

Clima4Future was founded in October 2020. The vision of the founder Helga Holzwarth (80) from Althütte in Germany is the promotion of nature and social projects that have a positive effect against climate change. Your concern is to take an important step towards preserving the earth for our grandchildren and their children's children during your lifetime. Your vision and your work should continue to exist through Clima4Future.

The primary goal is to jointly promote CO<sub>2</sub> reduction and create a win-win situation for people, companies and the environment.

Within the framework of the usual mechanisms of our economies worldwide, Clima4Future relies on the promotion of climate-related projects in the context of private, private business and public commitment.

A central element of the promotion is the sale of the ClimaCoin.

## 4. THE CLIMACOIN (CC)

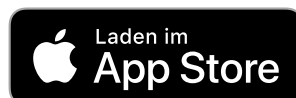
### What distinguishes the ClimaCoin:

- A maximum of 2.208 billion can be created in total.
- New ClimaCoins are only created if CO2 certificates have been deposited.
- The ClimaCoin is a fungible token based on the ERC20 standard.
- Since the Ethereum blockchain switched to the CO2-efficient “Proof of Stake” standard, the ClimaCoin has been available on Ethereum.
- The Clima4Future app on iOS & Android provides an overview of funded projects, wallets and allows the transfer of ClimaCoins.
- The ClimaCoin is listed on the p2pb2b exchange.
- The free price is determined by the stock exchange.

### What makes the ClimaCoin green:

- The proceeds from the ClimaCoin support environmental projects and thus purchase CO2 certificates from green partners.
- Compensated amounts of CO2 are assigned to each ClimaCoin.
- The transaction costs (approx. 0.07kg CO2/transaction) of the ClimaCoin are compensated by the positively stored CO2.

Clima4Future App



## ClimaCoin – Technical Data

Name of the Coin:	ClimaCoin
Coin-Ticker:	CC
Start of ClimaCoin:	15.09.2022
Max. Minting Volume:	2.208.740.668 CC
Explorer:	<a href="https://etherscan.io">https://etherscan.io</a>
Website:	<a href="http://www.climacoin.de">www.climacoin.de</a>
Whitepaper:	<a href="https://climacoin.de/whitepaper.pdf">https://climacoin.de/whitepaper.pdf</a>
API:	<a href="https://web3js.readthedocs.io">https://web3js.readthedocs.io</a>
Blockchain Typ:	Ethereum (since Proof of Stake is active)
Number of wallet holders:	86
Number of Nodes:	7784 ( <a href="https://ethernodes.org">https://ethernodes.org</a> )

## 5. THE CO<sub>2</sub>-CERTIFICATES

The company receives CO<sub>2</sub> certificates from the publishers for the promotion of climate-related projects. These certificates are deposited as compensated CO<sub>2</sub> for new ClimaCoins.

### **What is a CO<sub>2</sub> certificate**

The Kyoto Protocol, which came into force in 2005, is the first binding global agreement. Here it was decided to curb climate change. In it, the permitted amount of CO<sub>2</sub> emissions was determined and it was determined that CO<sub>2</sub> may only be emitted with an authorization in the sense of emission rights.

CO<sub>2</sub> certificates stand for emission-reducing measures that include a calculated compensation of CO<sub>2</sub> emissions for 1 ton of CO<sub>2</sub> per certificate. This is achieved by supporting climate protection projects such as B. Forest protection and agricultural projects.

Carbon credits initially issued by governments to companies to ensure the quality and integrity of the credits. There are monitored standards and verification procedures by independent institutions. Today, CO<sub>2</sub> certificates are also traded through various institutions.

The polluter pays principle applies. Anyone who emits greenhouse gases that are harmful to the climate in excess of the permitted amount must purchase emission rights in the form of CO<sub>2</sub> certificates.

This approval is granted on application by the competent authority in the form of ratings or certificates.

The number of permits or certificates is based on the total greenhouse gas emissions in regular operation.

Emissions trading takes place in the regulated market. A CO<sub>2</sub> certificate acquired in emissions trading entitles a company to produce one tonne of carbon dioxide within a certain period.

In addition, there are companies that are allowed to issue CO<sub>2</sub> certificates through CO<sub>2</sub> binding.

For clarification, a representation of the Federal Environment Agency from 2004

Operator		
CO <sub>2</sub> Emission	5.000 t	5.000 t
Available Certificates	4.500 t	4.500 t
Actual CO <sub>2</sub> Emission	4.000 t	5.000 t
Trade	<b>Selling</b> 500 t	<b>Buying</b> 500 t

**Abb. 1 UBA 2004**

## 6. USE CASES/AREAS OF APPLICATION

### ClimaCoin (CC)

Private individuals, public institutions, as well as small and large companies buy the ClimaCoin to make their contribution to the environment. By "keeping" the ClimaCoin, the CO2 amounts remain compensated by the buyer.

In the event of a liquidity bottleneck, purchased ClimaCoins can be sold on the open market at a later date.

#### Some examples



#### **Martin S., Germany**

I'm a nature person and I bought ClimaCoins. The environment is my element. I want to lead by example and inspire others through my carbon positive life.



#### **Damir P., Croatia**

I invested in the ClimaCoin because, as a captain, I value the cleanliness and purity of the seas. The fact that the ClimaCoin is a green and clean purchase confirms my decision.





**Rachel K., France**

my life is great But I'm afraid of the future of our planet.

With the ClimaCoin I can directly help to change it positively.



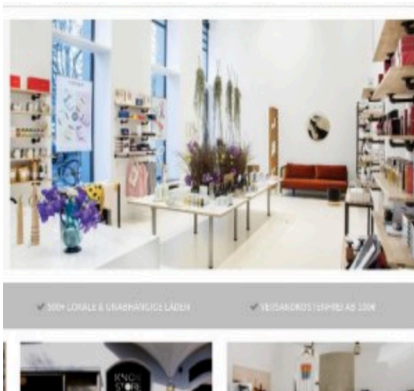
**Tobias Z., Germany**

Everyone is talking about the bad development of the climate. I looked at the Clima4Future projects and now regularly buy a few ClimaCoins. So you can't just help the climate passively.



**Martin R., Germany**

In our bistro, we very quickly reached the limits of CO2 neutrality. Now I buy ClimaCoins regularly and thus ensure an additional balance and can show my guests the projects that I support with it.



**Olaf P., Netherlands**

In our online shop we sell many small parts for medium-sized industrial companies in Europe. By purchasing ClimaCoins, we transparently show our customers how we offset CO2 with every order and support projects.

## 7. ROADMAP



## 8. TEAM

### Team members of the Clima4Future Project

The Clima4Future team consists of several members who deal with administrative and information technology matters. Also, the wide network of advisors in the climate-sensitive community helps us to find the best projects and solutions to move forward and make a positive impact on the climate.

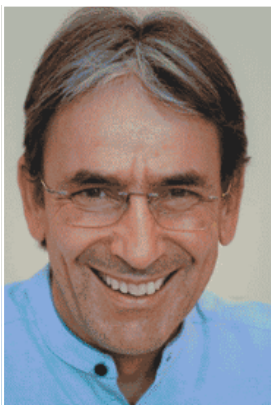
We would particularly like to highlight two important people who influence and drive this project forward.



**Helga Holzwarth**  
**Gründerin**

She has lived her entire life in harmony with nature. As a child on an environmentally conscious farm as a self-sufficient. In addition, she has always managed her company with reference to nature.

"I want to leave something to my grandchildren so that they can live well on this planet tomorrow."



**Helmy Abouleish**  
**Advisor Sustainability**

Helmy the CEO of Sekem in Egypt. He helps Clima4Future with his many years of expertise in sustainability issues.

## 9. Funded Projects

Clima4Future has been supporting the "SEKEM" project in Egypt since the start of the initiative. Other projects are also supported by Clima4Future. The number of projects to be supported also largely depends on the sales of the ClimaCoin. It is important to us not to fragment the volume of funding too much to marginalize the support for the individual projects.

Below we present the Sekem project. It started in 1977 and, in addition to the inspiring vision, has also proven to be successful over the past decades. Only through stronger support of such projects can we significantly increase the magnitude of the positive influence on the entire ecological system of the earth.



The vision of sustainable development in the desert has become reality!

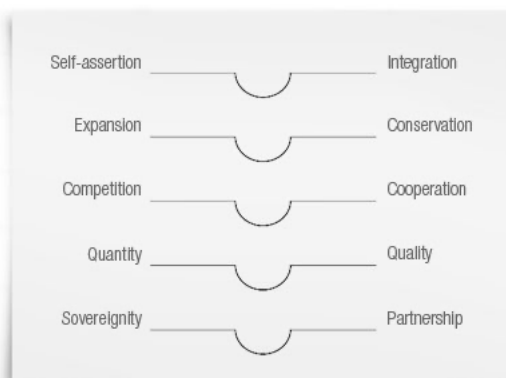
### **Sekem's vision:**

*“Sustainable development for a future in which every person can develop their individual potential; in which humanity lives in social forms that reflect human dignity; and in which all economic activities are in accordance with ecological and ethical principles.”*

**Ibrahim Abouleish**

### **Sekem's stats:**

In nature, each organism is independent and at the same time linked to other organisms. Inspired by ecological principles that represent the wisdom of nature and the universe, we continuously strive to gain, maintain and integrate in our development a harmonious balance between the following polarities.



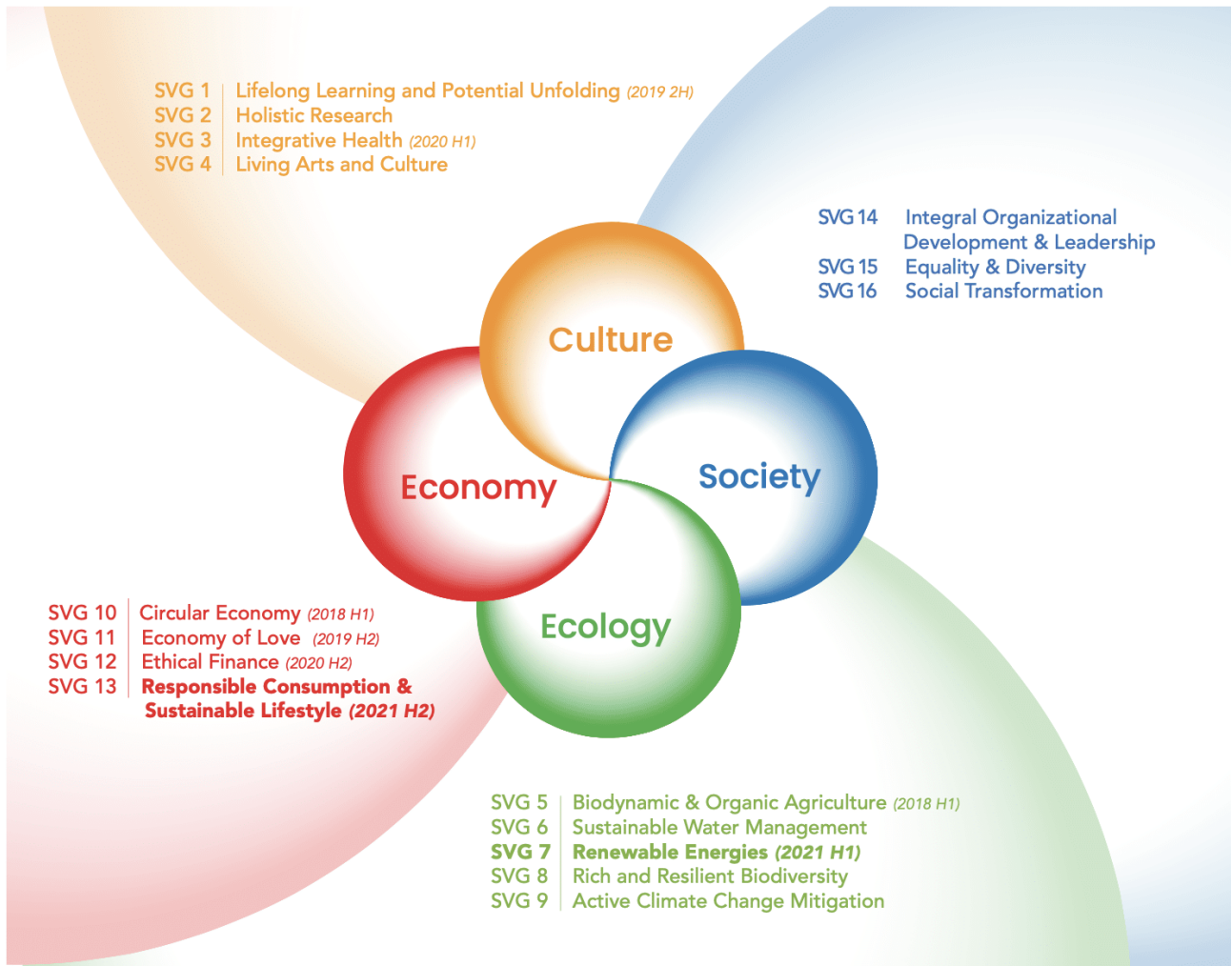
## **Sekem's order:**

To realize our vision of holistic and sustainable development in Egypt...

- we establish biodynamic farming methods as a competitive solution to meet the environmental, social and nutritional challenges of the 21st century,
- we support individual development through holistic education and medical care,
- we create fair and reliable jobs that reflect human dignity and support the individual development of each and every employee,
- we create business models according to ecological and ethical principles,
- we invest in sustainable development through research,
- we advocate a holistic approach to sustainable development locally and globally.

## **Sekem's Vision 2057:**

After SEKEM celebrated its 40th anniversary in 2017 and the death of the founder Ibrahim Abouleish, the SEKEM community has further developed the vision, mission and goals with a view to the next 40 years. Vision 2057 formulates how SEKEM wants to transform Egypt sustainably in the coming decades.



## Farming in the Desert - Quite a tall order

SEKEM Agrikultur acts as an umbrella for SEKEM's agricultural activities and companies. From the reclamation of desert land by SEKEM For Land Reclamation, to natural pest control by Predators and planting by El-Mizan, to livestock farming and composting by Libra, the entire cycle of agriculture is covered.



## **Agriculture is more than planting the soil**

Biodynamic farming is a method of organic farming based on a holistic understanding of life processes. One of the first sustainable agriculture movements, it treats soil fertility, plant growth and livestock as ecologically interrelated areas, emphasizing the spiritual and cosmic perspectives.

The basic idea of biodynamic agriculture is the sustainable use of animals, plants and soil as a single system. A large variety of plants and animals should be present on the farm: trees, various plants of different seasonality and various animals - for example birds, insects and small animals such as hedgehogs, lizards and others. It is important to keep the balance between flora and fauna, not to disturb the cycle of life on the farm and to support it with the respective contributions needed. Thus they strengthen each other and contribute to the nutrition of humans and themselves. Therefore, the cultivation plan takes into account a crop rotation that is related to the circumstances of each farm. An astrological growing calendar is used to keep proper time for farming. The basic principle of fertilization is the creation of a compost from plant residues and animal manure from your own farm. This mixture is treated with six biodynamic compost preparations made from medicinal plants. Additionally, there are two biodynamic field preparations that are used in cultivating the fields. The biodynamic preparations improve all bacterial, fungal and mineral processes present in the organic farming system. Therefore, they are helpful for sustainable agriculture.



## **From the desert to the supermarket**

Holistic agriculture - combined with processing companies in a closed value chain - enables SEKEM to manufacture products of the highest quality with full transparency and traceability: for Egypt and the world.

### **First impression: impressive!**

In the years 2007 to 2009, SEKEM acquired three new areas of desert land (total area of 6000 feddan) in order to set up model farms there. These should prove that biodynamic agricultural methods are the best option for desert land reclamation, food security and sustainable development for Egypt. They also secure SEKEM's growing need for pure and biodynamic raw material.

From the first year to 2013, SEKEM has reclaimed and developed around 1600 feddans – including the necessary infrastructure and community centers for sustainable development on all three farms.

### **Healthy plants can only grow on healthy soil**

Soil is a living organism. The solid and limited surface of the earth is the habitat of countless organisms and provides stability for plant roots. Soil is the fundamental basis for food production. In the future, the global surface of the earth will only be able to produce enough food for all people if we preserve its fertility, avoid erosion and allow sufficient water storage capacity.

## **Vital soils**

SEKEM turns every single feddan cultivated from desert land into a living soil. Today, the top layer of SEKEM's first farm soils (between 0 and 30 cm deep) is rich in organic matter and has a wide range of microbiological life - an essential prerequisite for increased water absorption capacity. In addition, the microorganisms are important in making nutrients such as potassium, phosphate or nitrogen accessible to the plants. Three techniques help us to ensure this vitality in the soil: firstly, the use of compost, compost tea and other organic fertilizers, secondly, the rotation of the cultivated plants, and thirdly, the use of biodynamic preparations.

## **Compost as organic fertilizer**

To build up the first organic mass in empty desert soils, we use compost that we produce in our own operation (see below). Continuous treatment of the field with compost tea (a mixture of compost; molasses and water, aerated for 16 hours) maintains and accelerates the activity of microorganisms in the compost. In some cases we need to add other organic fertilizers.

## **Plant rotation creates vitality**

By rotating nitrogen-consuming and nitrogen-accumulating crops, such as legumes, we prevent soil depletion. Instead, the roots of things like clover and beans can build up more organic matter. In general, we plan to always plant at least 20% of the farm acreage with legumes, and at least every fifth season on the same plot or greenhouse.

## **Biodynamic preparations**

A difference to other organic farming methods is the use of eight biodynamic preparations in the cultivation of plants. SEKEM uses horn manure (cow manure filled in cow horn and buried in our soil in winter) as well as horn kiesel (pebble filled in cow horn and buried in our soil in summer). Both are sprayed on the field. For the compost, SEKEM uses six different medicinal plants that are produced in a special way: they create a connection to cosmic forces that vitalize the plants. All preparations function as fertilizer.

## **What is Biodynamic?**

Plants form the dress of the earth. In many parts of the planet, they reflect the seasons. More than 500,000 species are rooted in the earth and build their substance from sunlight, carbon dioxide and water. By producing the necessary oxygen, forests can be considered the lungs of the earth. With all their parts, plants provide food and serve as medicinal remedies as well as multifunctional raw materials. They can be preserved in their diversity and their effectiveness can be further developed through careful care.

Plants and their fruits are the essential components of SEKEM products - whether herbs for medicine or oranges for juice. According to Demeter requirements, we do not use chemical fertilizers or pesticides during growth. Instead, we rely on natural pest control solutions and grow a variety of crops to maintain the natural balance.

Each plant has its own role in the soil and ecosystem, such as beneficial organisms and natural enemies in different types of plants. In order to maintain the natural balance, it is important to avoid monocultures and instead combine different crops on a farm - also through green corridors between individual fields.

## **Pest control, of course**

We use neem tree extract to stop the growth of caterpillars and other pests, and we also use pheromones to trap or irritate insects. In 2010 we started breeding beneficial organisms under the name Predators Production Company and in collaboration with Danish companies EWH Bio Production and Envision. The organisms are used on SEKEMS' own fields. However, they are also sold in agricultural markets as an efficient alternative to regular pesticides or other artificial chemical products that are harmful to soil, plants, air and people.

## **GMO Free Organic Seeds & Seedlings**

In relation to the issue of future food security, conventional food companies often justify the development and use of genetically modified organisms (GMO). We follow a strict “No GMO” policy.

People pollute the air every day, even if we cannot live without them

The air in our atmosphere is important to all aerobic creatures. Humans and animals can only live healthily in an environment with clean air. Global warming is a stark reminder of the importance of balanced conditions and temperatures in the atmosphere. Stabilizing these temperatures is the best way to avoid natural disasters related to climatic conditions.

The climate above the soil's surface is a factor that determines how quickly soil deteriorates and water evaporates. By planting trees around the fields, we achieve several effects in addition to a pleasant scent: the trees break the wind so that it cannot blow away the upper soil. The shade brings cooler and more humid air, which creates a microclimate between the surrounding rows of trees in a field. Tree photosynthesis uses carbon dioxide and gives off the oxygen it needs instead. In addition, the groundwater level rises slowly in the long term due to the cooler surface and brings with it additional microclimatic changes.

### **From green waste to carbon credit**

The fact that SEKEM and the surrounding companies process green waste into compost in contrast to conventional waste recycling methods significantly reduces greenhouse gas emissions. In 2011, the TÜV certification body awarded a total of 79,500 VERs (Verified Emissions Reductions) for SEKEM's methane-avoiding composting method. One credit (= one VER) offsets one tonne of CO<sub>2</sub> emissions. We then trade these received carbon credits internationally.

## **More than one additive in your drink. Water is the basis of all life.**

Water forms the basis of all life. Planet Earth's hydrological cycle is similar to the human circulatory system: water evaporates, falls back as rain, and runs from freshwater rivers into the salty oceans. Without human influence, the water clarifies and purifies along the way. 71% of the earth's surface is covered by water - mainly salt water. Drinking water is a scarce resource and must not be wasted or polluted.

SEKEM needs water to irrigate the crops in the fields and the green corridors, as well as for processing and for the employees. We use three water sources: Nile water, government-distributed water and well water. Certain rules for water consumption apply in all establishments and in all establishments, although they are not yet set out in a written regulation. After treatment, the wastewater from all operations is reused as irrigation water for the trees on the SEKEM farm.

We support the CEO Water Mandate, a United Nations Global Compact Initiative. As Egypt will be severely affected by global water shortages, we consider raising awareness of the careful and efficient use of the country's water sources as one of our top priorities.

## **Wastewater treatment with active organisms**

Effective Microorganisms (EM) are an aqueous mixture of 84 aerobic and anaerobic species, such as from the yeast family, lactic acid and photosynthetic bacteria. When applied to waste water, two effects can be observed: The activities of the microorganisms drastically reduce the odor and the sewage sludge in the sewage treatment plant is reduced by half. We get our high-quality EM from a company in Germany and only process them twice to avoid uncontrollable mutations.



## Impressions:







In fact, this is only a small excerpt from the large SEKEM project. Even during our personal visits to Egypt, it quickly became clear to us that the extensive approach and the positive effects can hardly be overlooked in a short time.

You can also find out more directly via the following link:

<https://www.sekem.com/de/sekem-agrikultur/#>

We regularly present the successes and new projects in our **Clima4Future app** or on our website

<https://www.climacoin.de>.



## 10. REFERENCES

Law on trading in allowances for the emission of greenhouse gases (Greenhouse Gas Emissions Act -TEHG);

[www.gesetze-im-internet.de](http://www.gesetze-im-internet.de)

Bitcoin, blockchain and cryptoassets; Aleksander Berentsen, Fabian Schär: University of Basel 2017

Federal Environment Agency and German Emissions Trading Authority Climate Protection: Overview of Emissions Trading 2004

### **Links Clima4Future**

<https://instagram.com/climacoin>

<https://m.facebook.com/ClimaCoin>

<https://www.reddit.com/user/climacoin/comments>

<https://www.linkedin.com/company/climacoin>

### **Cooperation partner**

Helmut Österreich

<https://www.sekem.com/de/>

<https://www.savezone.vision>



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# Clima4Future App

