

Europe's and the world's first vertical farming startup for threatened or endangered tree species as well as important crops or plants

develops further concepts for energy and resource-saving species conservation, climate and environmental protection. Botanical gardens, national parks and nature reserves are invited to join the **Greening Deserts Species Rescue CES-RPP**, **Greening Camp** and the **Trillion Trees Initiative** and related projects. The emergency program and projects to save species, restore biodiversity and ecosystems need international support. The goal is to save more than 300 tree species from extinction by 2025 - for example through professional tree breeding, seed storage, distribution and joint tree planting activities. Some international species protection, climate protection, nature conservation and environmental protection organizations have already showed their interest. We are looking forward to new partners in the future to master one of the biggest tasks and challenges of the decade. Reducing species extinction by mitigating its causes and promoting global biodiversity is at the forefront, also in urban regions and cities! With the **Urban Greening Camp**, the **Urban Greening Network** for healthier and greener cities was launched - many have followed the good example.

Species extinction, climate change, environmental degradation from monocultures, forestry and agriculture are increasingly evident.

Droughts and heat waves have made many impacts and causes clearly visible. The problems with old bad habits or systems such as excessive deforestation, draining, pollution, and destruction by agriculture or monocultures in rainforests or similar ecosystems rich in biodiversity and crops are complex. Yet solutions can be very simple - as explained in these and other articles. New techniques, technologies, products or services are not always necessary, but can of course accelerate and / or improve sustainable developments. **Greening Deserts** has over the years presented good solutions to many of these world problems - such as really effective developments and sustainable solutions to stop deforestation by monocultures. Diverse concepts for desert greening, tree planting campaigns, urban greening, vertical agriculture and innovative project developments like the **Greenhouse Ship** show great possibilities and potentials how to combine biodiversity conservation, ecosystem restoration, productive eco-agriculture and eco-forestry. Here are some ideas, methodical and sustainable thinking using the palm oil issue as an example. It are a few excerpts from the concept paper for the palm forest project **Palmforest.org**.

- Stop ALL new palm oil plantations in rainforests or similar ecosystems with rich biodiversity, fauna and flora.
- Attempt to convert palm oil plantations to more environmentally friendly habitats with greater biodiversity. Alternatively, replace or relocate to areas with no or very low biodiversity.
- Establish ecological agroforestry, mixed afforestation or reforestation with trees, shrubs, crops, herbs, fruit and vegetable plants.
- Move oil palm plantations to man-made deserts, drylands, wastelands and desert-like areas; In these regions, there not much damage to the environment and soils possible.

- Incorporate soil- and water-improving techniques such as sustainable drip irrigation through solar desalination systems.
- Continuous improvement and research of agrophotovoltaics, agroforestry, cleantech and greentech in the greening camps.
- Supporting various biodiversity, conservation, cultural, and scientific projects in each region, such as where the camps are beginning to restore or expand ecosystems.
- Promote environmental awareness and more sustainable consumption, reducing overproduction and overconsumption, especially of products that harm the environment, people and wildlife.

It is unrealistic to reduce the demand for palm oil on a large scale in the next few years and palm oil boycotts or sanctions can be problematic, especially to solve the main problems or causes, many good solutions have been elaborated. The points are not firmly decided or fixed resolutions, but suggestions and of course can be added to or improved.

The world does not really need more food production, but a better sharing, distribution and preservation of food by cooling, drying, pulverizing and processing of food waste around the expiration date - for example with new infrastructures, logistics and startups for **food waste preservation**. Also local or regional cabinets and preservation machines or facilities in food retail outlets could be established – similar like Norway's deposit return scheme for plastic bottles or similar plastic recycling machines! Current food sharing solutions are already quite good, but there is a lack of holistic solutions that solve the global supply chains, logistics or transport systems in connection with food waste preservation and food waste at expiry. The problems or solutions already start with the causes like overproduction, transport over long distances and environmental destruction by intensive agriculture. See, for example, monocultures and livestock or factory farming, as well as the excessive waste of food in supermarkets instead of preserving it, storing it and distributing it to the needy. A suggestion would be cooling and drying machines for perishable goods such as fish, meat, vegetables and fruit to make them durable before expiration. There are old tried-and-true methods for this, such as pulverization, cookies and chips - there are already vegetable chips, so why not make them from food waste. Retail itself, new startups and jobs could benefit from this innovation of direct preservation of "food waste", just before or after the expiration date. The respective countries or EU and UN could even promote this and regulate it accordingly! It is really time to reduce **the global famine of over 800 million people and hundreds of millions of children through better preservation and distribution systems - especially since the world produces food for well over 10 billion people!** The suggested lack of food is hypocritical and a big lie. There is enough energy, food and water for everyone worldwide. The artificial limitation, commercialization and denial of these resources in certain countries or regions is systematic and violates ethical, moral and humanitarian principles, rules and laws - such as international Children's and Human Rights.

Climate and environmental protection, nature conservation and species protection are also important issues in the climate crisis. The human-induced impacts of climate and environmental change, such as desertification, global warming and other extreme weather events can be reduced through a more balanced climate or weather system. Glaciers, ice sheets and reflective snow layers play an important role in this - as do large grasslands, wetlands and global forests of course. All the trees and forests in urban areas are also important, as is the coastal greening, marine conservation at the coasts – so like the protection of the lakes, rivers, seas, oceans and other waters. The Greening Deserts and the Trillion Trees Initiative, actions, campaigns and projects moved many nations, organizations and people to plant millions or even billions of trees! Some countries have followed the advice and announced that they will plant one or even several billion trees in the next few years. There is evidence of the advice and recommendations that have been sent to various ambassadors, ministers, institutions and organizations. In some cases, it is easy to see that direct action was taken after being contacted and communicated. Some initiatives and projects even have prominent imitators.

Further important statements, facts and opinions on the topic of climate crisis, nature and environmental protection

Human impact on climate, environmental, natural and weather systems is significant. The excessive disruption, destruction and pollution of natural environmental systems and life forms has made the world what it is today!

Certain industries, institutions, organizations, people and other responsible parties that have destroyed ecosystems and important parts of the environment and polluted the planet are also partly responsible for the extinction of countless species and the destruction of the biosphere. They have caused not only an unstable atmosphere, but also more toxins, greenhouse gases and water vapor. People should be aware of these true facts, logical arguments and reality and care more, learn from them and do much better. It is never too late to change and improve the world together as humanity in a sustainable way. Negative actions and impacts can be prevented or reduced by nations together. Destroyers and polluters are thus prevented or even stopped from causing further pollution and environmental destruction. They should comply with laws, policies and global development goals on their own of course.

Climate change adaptation, disaster risk reduction, education, resilience and understanding of the true causes or circumstances should be a priority - as should the regular revision and updating of the global Sustainable Development Goals (SDGs).

Further opinions and statements:

For general understanding, many Change Games and Greening Deserts projects are environmental, educational, scientific, social and truly sustainable developments. Most of them were developed by the founder in his spare time. Many are or were non-commercial and private projects. The Greening Deserts and the Trillion Trees Initiative are still private initiatives and can be transformed into organizations or startups at any time.

Many conservationists, environmentalists, climate and nature activists want to protect species, some even the really important and endangered species. That is commendable and there could be many more of these activists. But it is much more important to save the really critically endangered species and protect them at the same time! Still hardly anyone understands how important species rescue is and how unimportant species protection of unimportant species is - at least in comparison and relation to the rapid species extinction of the truly threatened or critically endangered species. Every gardener is a species conservationist. What good does it do the biosphere, nature and mankind if we save the few species we hear about every day - such as the elephant, tiger, panda and co.. On the other hand, countless, much more important species are dying out every day, including many keystone species on which many other species depend. Unfortunately, there is also a lack of awareness and understanding of the biosphere in terms of biomass and species diversity. All life forms in organic soils, grasslands, wetlands, and global forests, as well as water bodies, which even significantly regulate climate and weather systems, are the main component of the biosphere!

If humans really want to prevent species extinction, they must maintain **healthy ecosystems and restore important habitats and landscapes**, especially wetlands and real forests. This will allow the atmosphere, biosphere and all parts of nature to recover, naturally regenerate and better self-regulate. The connection between species recovery, species protection, climate protection, environmental protection and biodiversity, biosphere and ecosystem services is often not seen accurately. To this day, many people do not realize that climate protection is also species protection and thus contributes significantly to the preservation of the biosphere - because the biosphere consists of species, i.e. biomass. One of the best ways to protect and save species is to preserve the important habitats of these species and to restore ecosystems through greening, reforestation and species protection camps or similar projects on a global scale. The founder and initiator of Greening Deserts has explained these important issues in several articles and offered innovative solutions with global initiatives or international projects such as the Trillion Trees Initiative.

Another important issue is the lack of **Disaster Risk Reduction (DRR)** on so many levels. One example is flood protection through nature-based solutions. It is logical that, for example, after drought years, dry and water-repellent soils make erosion and flooding even more extreme. Another problem is the lack of trees and wetlands that have been destroyed. The problem in Germany is and has been the lack of disaster preparedness and management for

extreme weather events such as droughts and floods, DRR should be an established system worldwide. Urban flood protection through additional water reservoirs, waterways and underground reservoirs can also help reduce these risks - similar to the concept of sponge cities. Another problem is the lack of trees and wetlands, which have been destroyed primarily by extreme drainage for agriculture and strip mines. Many important ecosystems such as wetlands have been destroyed as a result, including wet forests, marshes, swamps, and floodplains. Facts and scientific advice on how to protect against land degradation, erosion and prevent flooding through disaster preparedness, nature-based solutions and sustainable water management can be found on the Greening Deserts project pages.

Many people from the climate movement, in governments, and even parts of industry have followed and been inspired by Greening Deserts' articles and projects - especially the articles, master theses and projects. On the topic of soil improvement and the global greening, a lot of experiences have been gained and many experts have been exchanged about meaningful actions. Since 2017, Greening Deserts recommends desert greening with hemp, desert bamboo and thistles, which loosen the soil to great depths as well as improve the soil overall. Appropriate ground covers or special grasses also protect new tree plantings from drying out. Green manure plants such as special field beans and hemp can quickly build humus-rich topsoil. This even works in drylands and wastelands! Read more in Greening Deserts articles "**Hemp toilet paper can reduce deforestation, climate change and global warming**" and "**Hemp cultivation in open-cast mines for sustainable soil improvement and organic farming with hemp**".

Climate, nature and environmental protection is also species protection.

All suffering is caused by ignorance. People inflict pain on others when they selfishly seek their own happiness or satisfaction.

Love and compassion are the foundations for world peace - at all levels. The way to change others' minds is with affection, not anger. Peace does not mean an absence of conflicts; differences will always be there. Peace means solving these differences through peaceful means; through dialogue, education, knowledge; and through humane ways. - Dalai Lama

Greening Deserts projects have inspired and moved many millions of people to do something for their environment and others who need greener and healthier habitats.

Greening Camps can reduce deforestation, land degradation, desertification and global warming by global greening, conservation as well as promotion of biodiversity, ecosystem restoration and ecological reforestation!

Human ignorance will kill us and all life forms on planet Earth. The only way to

prevent this dilemma is more awareness, education, environmental consciousness, respect and tolerance or even understanding.

Mankind does not need to travel to the desert planet Mars, if desertification continues at the current rate, we will have a desert planet Earth in 100 years!

Urban Greening is also Urban Cooling, so Global Greening is Global Cooling. - Oliver Caplikas

Ignorance, the root and the stem of every evil. - Plato

Ignorance, hatred and greed are killing nature. - Masanobu Fukuoka

Ignorance leads to fear, fear leads to hatred, and hatred leads to violence. This is the equation. - Ibn Rushd

It is better to be a warrior in a garden than a gardener in a war. - Miyamoto Musashi

Lasting peace cannot be prepared by threats but only by an honest attempt to establish mutual trust.

Peace cannot be kept by force; it can only be achieved by understanding. - Albert Einstein

The highest form of ignorance is when you reject something you know absolutely nothing about. - Dr. Wayne Dyer

The journey of every ignorant and obedient society always ends in the same place: In the desert. - Mehmet Murat Ildan

We can never achieve peace in the outside world until we make peace with ourselves.

Where ignorance is our master, there is no possibility of real peace. - Dalai Lama

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