# Impact Report Year 1

1 May 2021 – 30 April 2022 Regreener

## regreener

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Dear reader,

This report gives lots of insight in Regreener's impact during the first year after launching our impact platform on 5 May 2021.

For those of you who would like a short version of our results, please have a look at the summary on page 4 and 5.

May you have any questions, please do not hesitate to reach out to us via info@regreener.eu.

- Team Regreener

Regreener B.V. | Impact Report 1 May 2021 - 30 April 2022

Revenue and expenses		
Spent on projects	€ 122.410,84	77,2 <b>%</b>
Running Regreener	€ 36.215,71	22,8 <b>%</b>
Total revenue	€ 158.626,55	100%

Running Regreener 22.8%

#### Allocation

	€ spent	% of revenue
Eden Reforestation Projects	€14.560,42	9,2 <b>%</b>
WeForest	€ 11.390,73	7,2 <b>%</b>
Tree Planting (total)	€ 25.951,15	16,4 <b>%</b>
Rainforest Partnership	€12.095,38	7,6 <b>%</b>
Green Energy	€ 80.557,22	50,8 <b>%</b>
R&D	€ 2.541,21	1,6 <b>%</b>
Payment Service Provider	€1.265,88	0,8 <b>%</b>
Running Regreener	€ 36.215,71	22,8 <b>%</b>
Total	€ 158.626,55	100%

Rainforest Protection 7.6%



## **Summary** Year 1 - Impact

Tree Planting (number of trees)			
Location	Due	Planted	
Kenya	49.340	43.284	
Mozambique	84.572	100.129	
Zambia	11.604	12.415	
Ethiopia	11.250	11.250	
Total	156.766	167.078	

Rainforest Protection (in hectares)			
Location	Due	Protected	
Ecuador	4.693,54	4.4741,03	

Green Energy (in tonnes of CO2)		
Location	Due	Compensated
Various locations	17.190	17.462

#### Tree Planting

#### Rainforest Protection

Green Energy



#### Introduction Regreener in a nutshell

# "We are on a mission to fight climate change.







## Regreener is an impact platform that is focused on realizing green impact in a broad sense.

We are a sustainable commercial company, focused on fighting climate change by supporting the best projects out there.

We're enabling everyone to realize green impact through positive climate action. The impact platform is dedicated to transparent, trustworthy and high-impact projects.

Our goal is to enable every business and every consumer out there to contribute to a greener world.



#### We believe fighting climate change should be:



#### Transparent

Мо	ni	t	(
ΟW	n	i	r

or your mpact on your dashboard.

- You receive relevant project updates.
- Every month, we publish our revenue and a complete papertrail.



#### **Positive**

Focusing on achievements by our community.

A positive story: Let's keep our planet livable, together.

#### Approach Our approach

## Problem

The current situation is crystal clear: we have been dealing with rising carbon emissions for quite some time.

This has resulted in a rise in temperature in a way we have never seen before. We are currently on a path which will lead us past the 1,5°C degree tipping point.

The consequences of this would be paramount: rising sea levels, dramatic biodiversity loss, extreme weather conditions. Ultimately this will result in a planet that becomes unlivable for future generations. This is a clear problem that will affect all of us, regardless of geolocation, as well as future generations. It is time for action.



This problem has a solution. However, we need a structural, joint, comprehensive effort from lawmakers, companies and civilians to tackle this problem. We need to do this together.

If we (that's me, you, your father, grandmother, supermarket, employer and government) support green initiatives, we regreen the planet and stimulate biodiversity, whilst capturing CO2. By doing that, we prevent the earth's temperature from going past an irreversible tipping point.

There are various ways to do this. For example, trees are very effective in sequestering CO2 (if planted in the right way). Planting trees and preventing deforestation can really make a difference. Amongst many others, making the shift from fossil fuels to green energy is also a game changer.

#### Solution

We need a structural and sustainable effort to help reverse the process that we are currently in. We need to do this together! A growing community of individual contributors and companies will help to solve this problem.

We like to keep it simple. That's why we mainly focus on regreening the planet via subscription packages. We offer individuals and businesses the opportunity to compensate carbon footprints.

Furthermore, we offer the possibility to realize green impact in several other ways. For example, we assist companies in integrating fighting climate change into their business model. We also do Net-Zero Journeys, and we offer users the option to do a one-time contribution.

The subscriptions form the basis of Regreener, as they give us the most secure outlook and certainty to do what we want to do: regreen the world. It's also essential that Regreener grows, so that we can reach more people and companies, thereby achieving even more impact.

#### We fight climate change by:



Working with partners offering the best solutions against climate change



Providing any company that wants to contribute to a greener planet with the tools to do so; and



Actively contributing to the Global Sustainable Development Goals and the EU Green Deal





**Impact** Regreener Climate Portfolio



#### Project criteria

When selecting projects to support, the Regreener team and its climate science advisers look at the following criteria:



#### **CO2-sequestration** How much CO2 is captured (or

compensated) by the project?



#### Impact on biodiversity

Does the project have a positive impact on biodiversity?

#### Social impact

What impact does the project have on local communities?

#### Information provision

Is the organization that carries out the project able to provide us with sufficient information for us to inform our community, so that we are 100% sure that the promised impact has actually been realized?

## We partner with the most reliable and sustainable organizations and projects out there in order to make a lasting impact on nature and communities.

Our partners provide us with monthly updates and reports, making it possible for us to share our progress in a highly trusted and transparent way.

Hereafter you will find an overview of projects supported on behalf of the Regreener community during the past year, including explanation and relevant impact data.

#### Tree planting



## "A society grows great when old men plant trees in whose shade they know they shall never sit."

- Anonymous

Planting trees is beautiful and has lots of benefits. For example, trees improve air quality, provide oxygen, give a huge boost to biodiversity and are one of the most effective ways to compensate carbon emissions.

During this year, impact has been realized by the Regreener community through the tree planting and forest growing projects:

Project	Trees due	Trees due Trees financed	
Kenya	49.340	43.284	-6.056
Mozambique	84.572	100.129	+15.557
Zambia	11.604	12.415	+811
Ethiopia	11.250	11.250	0
Total	156.766	167.078	+10.312



Partner

Trees due

**Trees financed** 



den Reforestation Projects	

49.340 43.284 Tree balance 30 April 22 -6.056

Over 90% of Kenya has been deforested. The dangerous combination of logging, charcoal burning and illegal settling will only accelerate forest loss. Located on the eastern coast of Africa, Kenya is a country famous for its diverse wildlife and wide range of forest types that have long supported its communities.

However, in recent decades these forests have experienced extreme environmental degradation. Human activities such as logging, charcoal burning, and illegal settling to create farmland are significant factors of deforestation. This has caused an increase in severe drought and extreme poverty. As a result, Kenya has committed to achieving a 10% forest cover, and we are working closely with the government to help accomplish these commitments.

## Kijabe Forest Trust

restoration projects

#### Northern coast Lamu County

- Wildlife Trust
- habitats





## The Great Rift Valley

• In partnership with Kijabe Forest

• Afromontane reforestation and

• In partnership with David Sheldrick

• Mangrove and coastal forest





#### **Tree Planting**

in Kenya

#### KENYA

Tree species

#### Afromontane

Acacia gerradii Acacia kirkii Acacia xanthophloea Bridelia micrantha Calodendrum capense Cordia africana Cordia sinensis Croton machostachyus Croton megalocarpus Dodonaea viscosa Euclea divinorum Ficus sur Ficus sycomorus Ficus thonningii

Juniperus procera Maesopsis eminii Markhamia lutea Myrsine africana Nuxia congesta Olea africana Podocarpus falcatus Podocarpus latifolius Prunus africana Sesbania sesbans Trilepisium madagascariense Vepris simplicifolia Warburgia ugandensis Yushania alpina Zanthoxylum sambarense

#### Agroforestry

Avocado Croton (Croton megalocarpus) Juniperus procera Lemon Loquat Moringa (Moringa oleifera) Papaya

### regreener



Eden Reforestation Projects

#### Mangrove

Avicennia marina Bruguiera gymnorhiza Ceriops tagal Rhizophora mucronata Sonneratia alba

#### **Tree Planting** in Mozambique

Eden Reforestation Projects

#### Partner

Eden Reforestation Projects

Trees due **Trees financed** Tree balance 30 April 22

84.572 100.129 +15.557

With over 45% of Mozambique's population living beneath the poverty line, communities rely heavily on natural resources and forests. Mozambique is home to extensive biodiversity and varying landscapes with forests at the core of its social, environmental, and economic well-being.

However, more than 8 million hectares of forest (over 30,000 square miles) have been destroyed. Cyclones, floods, cutting down trees for firewood and charcoal, clearing large areas for farmland, and commercial logging are the leading causes of deforestation in Mozambique.

#### Coastal Maputo Bay

- Southern tip of Mozambique, near Maputo
- Mangrove restoration and reforestation
- reef health





• Provide stability against erosion and improve ocean and coral







#### **Tree Planting**

in Mozambique

#### Mozambique

Tree species

#### Terrestrial

Acacia karroo Acacia nilotica Adansonia digitata Afzelia quanzensis Albizia lebbeck Anacardium occidentale Citrus sinensis Colophospermum mopane Dialium schlechteri Faidherbia albida Leucaena gigante Mangifera indica Millettia stuhlmannii Moringa oleifera Psidium guajava l

Pterocarpus angolensis Sclerocarya birrea Sesbania sesban Strychnos madagascariensis Strychnos spinosa Terminalia sericea Trichilia emetica Vangeria infausta

#### Mangrove

Avicennia marina Bruguiera gymnorhiza Ceriops tagal Rhizophora mucronata







Partner

WeForest

11.604

12.415

+811

Trees due **Trees financed** Tree balance 30 April 22

In the Luanshya district, WeForest works with hundreds of small-scale farmers, providing them with training and tools in return for setting aside part of their lands to regenerate the miombo woodland. As a result, they receive higher incomes, diversify their economic activities and learn new skills. The project also links them to local companies to ensure their honey gets sold. This way, the project becomes more sustainable, which makes the beneficiaries less dependent on WeForest's contribution.

In June 2021, a successful third-party audit took place and means the project is now verified to the Forest Ecosystem Restoration standard. This standard was developed by Preferred by Nature to enable projects to demonstrate alignment with and support for the UN Decade on Ecosystem Restoration and covers technical, environmental, social and economic criteria.

### **Copperbelt province** The Luanshya district

- Located in the Copperbelt
- Natural Regeneration
- Promoting economic development





province in the North of Zambia • Growing forests through Assisted



Tree species ⊖ <u>p.19</u>

#### **Tree Growing** in Ethiopia

Pa	Irt	ne	r			
				_	_	
		-				

WeForest

**Frees due Trees financed** Tree balance 30 April 22

11.250 11.250 0

In Machakel in Ethiopia's Amhara region, the local community is at the heart of the forest restoration project. Indigenous trees are planted on community land, gullies and riverbanks, and fruit and timber trees are planted on farms. Training the local people is an important aspect: villagers learn new skills and share these with other people in the surrounding villages. This enables the entire community to start protecting and restoring their own forests.

Fruit and timber trees, apiculture, brick production, cookingstove and fodder production offer additional income to diversify income streams in ways that ease pressure on the surrounding forest.

### **Amhara Region** Machakel woreda. East-Gojam zone

- Ethiopia
- Natural Regeneration
- degraded land





• Located in the North-West of

• Growing forests through Assisted • Restoring native forests and





#### Tree Growing

in Zambia and Ethipia

<b>Zambia</b> Tree species	<b>Ethiopia</b> Tree species
Albizia spp.	Faidherbia albid
Brachystegia spp.	Juniperus proce
Combretum spp.	Moringa stelapol
lsoberlinia spp.	Olea Europea
Julbernardia paniculate	Pinus patula
Pinus oocarpa	Podocarpus spp

Pterocarpus angolensis





a ra lata

#### **Rainforest Protection**



## "Forests are the world's air-conditioning system – the lungs of our planet – and we are on the verge of switching it off."

- Charles, Prince of Wales

Trees are the lungs of the earth, that's why it's important to protect and conserve them. Rainforests especially have an important role in keeping the ecosystem balanced. By protecting rainforest, we also protect local indigenous communities in Ecuador.

During this year, impact has been realized by the Regreener community through the rainforest protection project as is further explained on the following pages.

#### **Rainforest Protection**

Women of the Rio Napo

## RAINFOREST PARTNERSHIP

#### Partner

Hectares due Hectares protected Hectares balance

#### Rainforest Partnership

4.693,54 4.741,03 +47.49

This project generates economic resilience for women in indigenous communities along the Napo River (Rio Napo) in Ecuador, equipping them with greater resources and capacities to conserve their forest and the biodiversity within it. The Rio Napo flows deep in the heart of Ecuador's lush and vast Amazon Rainforest. Groups of women are sustainably growing products on their chakras, including cacao, plantain, and guayusa, in harmony with the forest. Through their entrepreneurial leadership, these women are envisioning and forging new paths forward to expand opportunities for themselves and their families.

Agroforestry strengthens sustainable food production in forest systems without incentivizing deforestation, on a large enough scale to generate sustainable income for local and indigenous people. It also improves ecological stability, biodiversity, and soil health.

Rainforest Partnership protects over 149,500 acres of forest in one of the most biodiverse places in the world. This vast area of rainforest stores between 7,5 million tons to 9,7 million metric tons of CO2. The communities we are working with are Isla Flor Amazónico, Munditi Urku, Sani Isla, Hatun Urku, and Flor de Pantano.

#### Ecuador Western-Amazon

- restoration plans
- rainforestso far





• Located along the Rio Napo river • 104+ indigenous women leading agroforestry projects and generating income for themselves and their families • Workshops and farm field schools used to implement agroforestry and forest

• Long term protection and regeneration of 4.741.03 hectares of the Amazon



## SUSTAINABLE G ALS



"I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait till oil and coal run out before we tackle that."

- Thomas Edison

Green energy and renewables are the future. They reduce the dependency on fossil fuels for power generation, providing clean electricity whilst also reducing air pollution. We support a variety of highstandard projects that are verified by Gold Standard, Verra Verified Carbon Standard (VCS) or the Clean Development Mechanism (CDM) of the United Nations Framework Convention on Climate Change (UNFCCC). These projects focus on local communities to develop clean and safe renewable energy projects.

#### Regreener community projects:

During this year, impact has been realized on behalf of the Regreener community through multiple green energy projects, further explained on the next



Parbati Hydroelectric Project Stage III

Standard	VCS	
Tonnes of CO2 retired	109	

#### India

#### Sainj, Kullu, Himachal Pradesh

The Parbati Hydroelectric Project is a hydropower project located on the river Sainj in India. The purpose of the project is to generate electrical power using hydroelectric energy generated through the hydro turbines in the dam. The hydroelectric energy generated from the hydroelectric power plant is then transferred to the State Grid System.

The project activity has generated direct and indirect employment for skilled and unskilled locals both during the construction phase as well as during the operational stage. Therefore, the project has helped in controlling migration from the region and alleviation of poverty. The project activity's contribution of power supply is helping in uplifting social life of locals by ensuring a sustainable and reliable source of power for the region. The Project has improved the infrastructural facilities like water availability, roads, and medical facilities in the region. The project activity generates clean energy, thus reducing emission. Without the project, power would have been generated by fossil fuels resulting in more emissions. The project has reduced the dependence on fossil fuels, thus conserving the natural reserves. The Project activity has improved the infrastructural facilities like water availability, road, and medical facilities etc in the region.





AFFORDABLE AND

CLEAN ENERGY

## SUSTAINABLE GOALS



Mersin Wind Farm Project

#### Gold Standard<sup>®</sup>

#### **Standard**

#### Gold Standard

201

#### Tonnes of CO2 retired



#### The Mersin Wind Farm Project is a wind farm project located in the Mut district of Mersin Province in Turkey. As a result of the efficient utilization of the available wind energy, project activity will replace the grid electricity, which comes from different fuel sources, mainly fossil fuels. The total annual energy production is about 100 MWh. The energy is fed to Gezende Dam, situated approximately 25km southwest of the wind farm. The project will help Turkey stimulate and commercialize the use of grid connected renewable energy technologies and markets. Furthermore, the project will demonstrate the viability of grid connected wind farms which can support improved energy security, improved air quality, alternative sustainable energy futures, improved local livelihoods and sustainable renewable energy industry development.

The specific goals of the Mersin Wind Farm Project are to:

- Reduce greenhouse gas emissions in Turkey compared to the business-asusual scenario;
- Help stimulate the growth of the wind power industry in Turkey;
- Reduce other pollutants resulting from power generation industry in Turkey, compared to a business-as-usual scenario; and
- Help reduce Turkey's increasing energy deficit; and Differentiate the electricity generation mix and reduce import dependency.







## SUSTAINABLE GOALS



Monte Rosa Bagasse Cogeneration Project



**Standard** Tonnes of CO2 retired

## Nicargua

Ingenio Monte Rosa

The Monte Rosa Bagasse Cogeneration Project is located in Nicaragua and involves the improvement of energy efficiency by retrofitting an existing biomass residue fired power plant. The retrofit increases the power generation capacity at the sugar and ethanol production mill, Monte Rosa. The project will reduce an estimated 115,000t CO2 every year.

CDM

201

The bagasse generated during the crop season at the mill is continuously used by the project activity. Bagasse is considered a biomass residue of the sugarcane. Biomass residue is a by-product, residue or waste stream from agriculture, forestry and related industries. Monte Rosa has always cared about other environmental issues, including preservation of local environment, constant improvement of preservation areas, adequate treatment of effluents and other residues, and is therefore in compliance with any applicable environmental regulation in Nicaragua, no other environmental impact assessment or documentation should be necessary for Monte Rosa Bagasse Cogeneration Project activity. The system controls the environmental impacts of the plant: residual water, gas emissions, solid waste, noise, dust and air quality. Through the implementation of this project, Monte Rosa increases the amount of electricity generated and is able to sell electricity to the Nicaraguan grid, avoiding the dispatch of energy produced by fossil-fuelled thermal plants to that grid. The initiative avoids CO2 emissions and contributes to the regional and national sustainable development.







## SUSTAINABLE G ALS



La Tirana Solar One Project



#### Chile La Tirana

The name of the project is "La Tirana Solar One Project". The Project site is located in the north of Chile, approximately 4 km outside the township of La Tirana, Chile. The Project was constructed using cadmium telluride thin-film solar modules. The thin film modules absorb sunlight and convert the sunlight into direct current (DC) through a photovoltaic process. Once the modules are manufactured, they require no additional fuel source to generate electricity and as a result emit no air emissions at all.

CDM

650

The project establishes Chile as a leader in solar development. It diversifies Chile's energy mix in support of the country's renewable energy policies. Construction of the project created up to 370 construction jobs. Furthermore, there are around 10 ongoing operations and maintenance positions. The project provides for business opportunities in the Copiapó region including construction, environmental, transportation, food and hospitality services. Local vendors were trained and certified to match international standards and locally-produced construction materials were used. In addition, a training program was established at Liceo Politécnico José Antonio Carvajal to prepare students to join the growing solar industry as skilled installers of PV technology. No water is used to clean the PV panels, protecting natural resources.





AFFORDABLE AND Clean Energy

## SUSTAINABLE G ALS



Ishasha Small Hydropower Project



The Kanungu Power Station (Ishasha Small Hydropower project) is a renewable energy project in which electricity is created through hydropower, with an annual electricity production of 31,596 MWh. The project is located just outside the border of Bwindi Forest National Park in the Kanungu District, which is in Western Uganda. The Ishasha Small Hydropower project supports a 6.6 MW hydropower plant located 500 metres below the Bwindi Forest National Park boundary on the Ishasha River.

This hydropower plant not only provides clean energy to the grid, but also gives the local communities in the area access to electricity, which brings both social and economic benefits. Without a modern source of electricity, medicines and food cannot be refrigerated, and children cannot study at night or access high quality learning materials. Access to electricity also facilitates economic growth in the region, supporting the growth of local entrepreneurs and providing opportunities for industrial expansion.







## SUSTAINABLE GOALS



Nueva Aldea 2

### **Standard** Tonnes of CO2 retired

#### Chile

#### Nueva Aldea

Nueva Aldea 2 is a 42 MW biomass power plant. It uses black residue from the pulping process as a renewable fuel source to cogenerate heat and electricity. The project prevents pollution and creates jobs in the region.

CDM

2.400

The project activity will assist Chile's sustainable growth by providing electricity through biomass power generation, which is a clean and renewable energy source. The participants believe that biomass power generation constitutes a sustainable source of power generation that brings clear advantages to mitigate global warming, sing the available natural resources in a rational way, this project helps to promote the development of renewable energy sources in Chile. The project is a good example of the viability of electricity generation as a source of revenue not only to the pulp mill industry, but to all forest-related industries.







## SUSTAINABLE G ALS



São João Landfill Gas-to-Energy Project

**Standard** CDM Tonnes of CO2 retired 3.250

#### Brazil $( \circ )$

#### São João Landfill, São Paulo

São João Landfill Gas-to-Energy is a project designed to explore the landfill gas produced in Aterro Sanitsário. The project is located in the metropolitan region of São Paulo, Brazil's biggest city.

The landfill has generated large quantities of methane gas since its origin but most of it was lost through passive ventilation. The São João Landfill Gas-to-Energy project makes use of the landfill gas to explore the energy potential and thereby minimize environmental problems related to global warming. An estimated amount of the annual reduction of greenhouse gas emissions is around 816,940 metric tons of CO2. The energy generator generates around 20 MWh/h in daily energy. The main goal of the project is to explore the gas produced in São João landfill for electricity generation. The landfill has been designed according to modern practices. The project tries to maximize the prevention of the release of greenhouse gas emissions, whilst generating electricity. Furthermore, the project aims to provide opportunities for socioeconomic benefit.







## SUSTAINABLE GOALS



Client Specific Projects

Next to the impact that was realized on behalf of the Regreener community, the following projects were supported on behalf of certain clients that were looking for compensation through specific projects:





Total Impact

Total impact Green Energy & Renewables		
Total tonnes of CO2 due	17.190	
Total tonnes of CO2 retired	17.462	
Total tonnes of CO2 balance	+272	

#### **Overview tonnes of CO2 retired**

#### **Regreener Community Projects**

Project	Standard	Tonnes of CO2 retired	
Parbati Hydroelectric Stage III	Verra VCS	109	
Mersin Wind Farm	Gold Standard	201	
Monte Rosa Bagasse Cogeneration	CDM	320	
La Tirana Solar One	CDM	650	
Ishasha Small Hydropower	CDM	2.380	
Nueva Aldea 2	CDM	2400	
São João Landfill Gas-to-Energy	CDM	3.250	
Total		9.310	

#### **Client Specific Projects**

Project Methane Gas Capture Methane Recovery Wenchang Rural Methan Parque Eolico Maldonad Las Pizarras Improved Cooking Pract

Total



	Standard	Tonnes of CO2 retired
	Gold Standard	950
	Verra VCS	562
ne Digesters	Gold Standard	140
0	Verra VCS	3.333,33
	Verra VCS	2.666,66
ices	Gold Standard	500
	·	8.152

#### **Research & Development**



We believe innovation is key to solving climate change challenges. Doing research, developing new tools, and supporting innovation throughout the ecosystem services sector will be essential in solving climate change. We use a marginal part of our revenue (3%) to propel both in-house and industry-wide innovation.

#### How it works:

- Apart from directly sponsoring partners, we use a part of your contribution to propel innovation, always directly aimed at reducing CO2.
- We will do this by working and partnering with scientists and businesses in the field of reforestation, agriculture & tech.
- Additionally, we aim to support sustainable companies with a like-minded mission: fighting climate change.

In the first year, we have saved <u>EUR 2.541,25</u> to invest in Research & Development.

#### Team

Our team works very hard to try and make this world a greener place. Although backgrounds are our varied, we all have the mission: impact, same now, together.

As a team, we try to operate the same way we operate towards Regreeners: open, transparent, and positive-minded.

We trust science and believe that complaining about the current state of affairs, or turning a blind eye is not the way forward. As far as we're concerned the way forward is to be realistic and optimistic: we can turn this around. We need to work hard and make sure we work together - tree by tree, project by project.

#### **Team Regreener**





Florine van den Bent Marketing Manager



Mara Kok Digital Designer/ Frontend Developer



Philip Pattynama **Business Development** Associate



Laurens Visser **Business Development** Associate

#### **Brand Ambassadors**

Over the past months, we have been busy creating a network of Brand Ambassadors to help us spread the word of our mission.

Our Brand Ambassadors are involved in contributing to a greener and more sustainable world, by forming a close network.

Brand Ambassadors are primarily focused on increasing the reach of Regreener (i.e. spreading the word). Furthermore, we hold sessions on marketing in which they help come up with ideas for marketing, operations and web-development.

Interested to join our fast-growing group of Brand Ambassadors? Please reach out to Serge at <u>serge.amain@regreener.eu</u>.

#### As per the date of this report, our network of Brand Ambassadors consists of:

Maud Olland Maxime Evers Lung Christern Sterre Christern Kisha Linsen Minus Christern Cato Bergink Nina Bijleveld Noor Olland Romeé Visser Willem van Dijk Merel Schliekelmann Bo Hofman Daniella van Zonneveld Bram van den Brink Dani Rodriguez Penalva Fee Esser

Tess van Kesteren Frederique Duynstee Hugo Zwartkruis Sergej Kavazovic Christa Hoedemaeker Remco Rijgersberg Tijo Zwartkruis Michiel Walhof Fenna Smitka Floris Jansen Suzan de Leeuw Lucas de Vos Aimee Bast Wouter Jansen Luisa Hartogh Nienke van Nugteren Rosemarie Nauta

A

Claire Völker Alexander van Wijngaarden Sophie Visscher Ilias Talha Frederiek Bax Iris Vreenegoor Joost Kist Kika Houben Livia Parker Sjoerd Willems Wisse Zwanenburg Andrew Mulder

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#### Science Blog: Marveling at Mangroves

By Bob Kreiken

In slightly half a century from 1970, carbon emissions have increased by 90 percent, global wildlife populations decreased by **<u>nearly 70 percent</u>**, and Earth Overshoot Day, which measures the date when annual humans' ecological footprint has outpaced the planet's capacity to provide these ecological resources, moved in that brief period from Winter to Summer. Just to put that into context. Suppose we put the 200.000-year-old history of homo sapiens on a 24-hour clock. Then the past fifty years would last a mere 20 seconds. world will soon become The uninhabitable if we continue on the same course. But the critical 'seconds' to act on climate change are rapidly running out.

However, there are also reasons for optimism. Support for climate mitigation and conservation have gained immense political and societal momentum. Calls for sustainability are changing life radically, from lifestyles, to business and governance. Carbon offsetting is one of the revolutions making a positive impact on the climate by compensating emitted CO2, enabling climate mitigation aside from large reductions of carbon emissions. That is exactly the kind of service that Regreener is facilitating. Regreener has begun planting mangrove trees in collaboration with the renowned reforestation organization Eden Reforestation Projects. Their collaboration enables carbon offsets in the coastal wetlands of Mozambique in Eastern Africa. But what are mangroves actually and how do these trees contribute to mitigating climate change? In this first science blog, we unravel the mystery of mangroves and examine their impact on not only climate mitigation, but also on human welfare and biodiversity.

#### Mangroves

The name 'mangroves' refers to approximately 110 tree species that are able to survive in saline or brackish water and are found in intertidal zones alona tropical and subtropical coasts around the world. Adapted to long-term flooding, intense heat, tsunamis, tropical cyclones, mud and high salt concentrations, there are many things to admire about these hardened trees for nature-lovers. Take, for example, their unique dispersal and colonization mechanism. Instead of being carried by the wind or eaten by animals and thus dispersed, mangrove seeds remain attached to the parent tree and evolve into seedlings with their own leaves capable of photosynthesis.



Like the parent tree, the seedlings use carbon dioxide and water to produce sugars for growth and oxygen. Thereafter, these seedlings, so-called propagules, are dropped into the water below the parent tree and remain floating before rooting in suitable soil. Propagules have the capacity to float for up to months as they are transported by the currents along the coasts and even across oceans to find a spot to call home.

Furthermore, tree roots require oxygen for respiration, which is scarce in the waterlogged and oxygen-stricken soil of mangrove forests. Mangroves have evolved to cope with this lack of oxygen through having breathing (or aerial) roots that allow for aboveground oxygen uptake when the water level lowers. These spectacular root systems form a closely knit and nutrient-rich labyrinth. Ideal conditions for wildlife to flourish! It is no wonder then that these magnificent ecosystems are crucial to ocean life as mangroves are the **nurseries of one-third** of all marine fish species in need of food and protection from predators in early life. Hence, mangroves are essential to commercial fisheries. Mangrove forests also synergistically protect corals and seagrass: the cornerstones of marine

biodiversity. The mangrove ecosystem of Maputo Bay, Mozambique, where the planting projects of Eden Reforestation are located, even <u>harbors many iconic</u> <u>tetrapod species</u> such as dugong, dolphins, five species of sea turtles, and a third of bird species native to Southern Africa, like the mangrove kingfisher. Replanting mangroves in threatened and depleted mangrove forests is thus essential to safeguarding biodiversity for future generations.

But that's not the primary reason for Regreener to collaborate with Eden Reforestation. Mangroves are actually indispensable to human welfare. The concept of ecosystem services, in wider use since a few decades, is used to evaluate the services of nature provided to humans. If ranked on ecosystem services, mangroves would definitely score a five-star-rating. Mangrove is the best studied ecosystem in the paradigm of Blue Carbon which studies the carbon storage and sequestration of oceanic and coastal ecosystems. Research has revealed that mangrove forests are champions for climate mitigation, being up to four to five times more efficient at carbon storage than tropical rainforests. Not only do the mangrove trees



themselves sequester CO2 from the atmosphere through photosynthesis, the root systems also capture sediment from tidal floodings and store organic material in the mud, thus preventing massive releases of CO2. Each mangrove tree planted by Eden Reforestation in Mozambique removes over 308kg of CO2 over its 25-year lifespan, or 12 kg of CO2 per tree per year. And that's just the trees! Mangroves in Mozambique store around 62 tonnes of carbon dioxide in sediment per ha. When destroyed, these forests become immense CO2 emitters.

#### Investment in mangroves

Importantly, investment in mangrove protection and restoration is key to helping developing countries meeting their National Determined Contributions of the Paris Agreement. As Mozambique is one of Africa's most vulnerable countries

to climate change, mangroves are too essential in climate adaptation. Coastal populations in Mozambique will be affected through sea level rise, saltwater intrusion into agricultural fields, and severe cyclones and erosion. Mangroves are the critical ecosystems that coastal human populations need in an increasingly threatening climate. Mangrove forests function as storm

barriers, thereby breaking waves, halting disastrous coastal erosion and coastal flooding. The maintenance of mangrove forests is five times more cost-effective than human-built infrastructure for coastal protection. Mangroves also filter water from pollutants, support local food security, as well as the economy through ecotourism and the sustainable use of fish and forest products such as medicinal plants. Regreener facilitates the projects of Eden Reforestation wherein local communities are engaged in reforestation and financially supported. Likewise, involving local communities in conservation efforts decreases pressure on the mangrove forests.

Combined, these annual ecosystem services of mangroves are estimated to be worth \$194.000 per hectare Unfortunately, mangroves, covering less than 1% of the world's surface, are threatened ecosystems with a loss of over a third of the global cover compared to pre-1980 levels. Despite their value in terms of climate mitigation, mangrove cover still is **decreasing** annually by around 2% . Maputo Bay has seen the highest loss of mangroves in Mozambique over the past decades. But luckily their extent is again increasing in

recent years through much needed restoration efforts.

Small efforts coupled together can thus make a big impact for the planet. The mangrove forests of Maputo Bay that are restored and maintained will keep wildlife



and people safe from harm. The planting project in Mozambique showcases how reforestation not only tackles climate change, but also improves human welfare and biodiversity.

That's one more reason for optimism.

#### **Financials**

## Transparency and trust are essential in what we do.

We are not a charity, but a sustainable commercial company. This means that we are using part of our revenue for the platform and to grow our community. The bigger the Regreener community, the bigger the impact. We believe growth is essential to make a real impact. Our business model works as follows. 75% of our revenue goes into our climate change fighting projects and relevant transaction costs. When we say we value transparency, we mean it. On our financials page, we show (i) the impact of the entire Regreener Community and (ii) a papertrail of our impact. Furthermore, we post evidence of the trees we have planted, the donations we have made to rainforest conservation and the carbon certificates we have purchased, so that this process is transparent as well.

The 25% we use to run Regreener and to optimize our platform is used to cover necessary expenses and operational costs, such as office rent, office expenses, website hosting, licenses, team member compensation, marketing, IT, software, legal advice and accounting. As it is our goal to enlarge the Regreener community, it is unavoidable that we make costs. In order to create a community that has the power to really make an impact we need to spread the word. Logically, we need people and resources to make that happen.

#### **Funding**

Setting up a business costs time and money. In order for us to be able to realize as much green impact as possible, we think building a healthy business is key. To do that, funds are needed. Since starting this business early 2021, we have raised two funding rounds.

In March 2021, we have raised our preseed funding round. In this round, we raised EUR 80.000,00 in convertible loans from nine different investors. Most of these funds were used to build our business and launch our platform. At the end of 2021, the founders of Regreener decided our launch had been successful, and that it was time to take the next step in our process. In order to further expand our business, Regreener needed new hires and a bigger office. Furthermore, we want to expand our marketing strategy. In December 2021, EUR 350.000,00 in convertible loans was raised from two angel investors. Amongst others, we are using the funds to expand our team, build a new platform and enhance our marketing strategy.



When we say we use your money to effectively fight climate change and that we value transparency, it is important that you have meaningful insight into this. Please check out our financial breakdown. The relevant related impact can be found in the Impact section.

#### Financials

Financial Breakdown

When we say we use your money to effectively fight climate change and that we value transparency, it is important that we provide meaningful insight into this.

Please check out our financial breakdown for the first year, showing YOU our revenue, cumulative amount revenue, spent impact, on green cumulative amount spent on green impact and the percentage of our revenue that was actually utilized to realize green impact.

Month	Revenue	Cumulative Revenue	Spent on projects	Cummulative spent on projects	Cumulative %
May 21	€ 1.947,62	€ 1.947,62	€ 618,76	€ 618,76	32 <b>%</b>
Jun 21	€ 2.469,90	€ 4.417,52	€ 1.757,58	€ 2.376,34	54 <b>%</b>
Jul 21	€ 3.187,21	€ 7.604,73	€ 2.817,42	€ 5.193,76	68 <b>%</b>
Aug 21	€ 3.047,50	€ 10.652,24	€ 2.505,76	€ 7.699,52	72 <b>%</b>
Sep 21	€ 3.042,01	€ 13.694,25	€ 2.996,22	€ 10.695,74	78 <b>%</b>
Oct 21	€ 4.483,46	€ 18.177,70	€ 2.759,13	€ 13.454,87	74%
Nov 21	€ 7.664,56	€ 25.842,26	€ 4.065,97	€ 17.520,84	68 <b>%</b>
Dec 21	€ 15.085,24	€ 40.927,50	€ 13.160,74	€ 30.681,58	75 <b>%</b>
Jan 22	€ 11.609,88	€ 52.537,46	€ 10.533,09	€ 41.214,67	78 <b>%</b>
Feb 22	€ 25.709,20	€ 78.246,66	€ 14.226,7	€ 55.441,39	70 <b>%</b>
Mar 22	€ 40.425,93	€ 118.672,59	€ 34.940,78	€ 90.382,17	76 <b>%</b>
Apr 22	€ 39.953,96	€ 158.626,55	€ 32.028,72	€ 122.410,89	77 <b>%</b>

Dear reader,

What a ride it has been. We think it's safe to say the first year of Regreener was a great success!

It is very important that we keep on going. Let's try and regreen the planet as much as we can. For that, we need you.

Willing to regreen the planet with us? Please do not hesitate to reach out to us via info@regreener.eu.

- Team Regreener

Regreener B.V.Impact Report 1 May 2021 - 30 April 202240

#### Regreener

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