

JUSTDIGGIT

IMPACT REPORT

HIGHLIGHTS 2023

Here it is, our 2023 impact highlights report!

We have gathered our landscape restoration projects' most important impact data in one convenient overview for you. As 2023 was a productive year for the greening of our planet, let's dig into our impact right away!

IT'S OUR MISSION
TO ACTIVATE

350
MILLION
FARMERS

OUR MISSION

If we can warm up the planet, we can also cool it down. But we have to take action now. We play our part by regreening dry and degraded land in Africa together with farmers, pastoralists and local partners. Our ultimate goal is to inspire and enable 350 million subsistence farmers and pastoralists in sub-Saharan Africa to regreen their own land by 2030!

WHAT WE DO & OUR PROJECT AREAS

In 2023, we were active in six landscapes with our own regreening programmes: Chyulu, South Rift, Amboseli and the Northern Landscapes in Kenya, and Northern Tanzania and Central Tanzania. We also took our first steps in Senegal! We partnered up with three new regreening partners and designed a scalable Treecovery project. In the 2024 report, we expect to be able to report our first impact numbers. As you can see on this map, we use different interventions depending on the area and terrain.

GENERAL LANDSCAPE OVERVIEW



Bunds:

Probably our most well-known regreening technique! Bunds are semi-circular shallow holes dug in the ground that capture rainwater and prevent erosion. They promote infiltration, allowing seeds to grow into vegetation and giving the soil a chance to restore.

Water harvesting trenches:

Also called *fanya juu/chini* in Swahili. Water harvesting trenches retain rainwater, reduce erosion and are often used on sloped farmlands, where regenerating trees might not reduce surface runoff enough. Trenches are used on both farmland and rangeland.

Treecovery:

Also known as Farmer Managed Natural Regeneration (FMNR) or Kisiki Hai. This is an effective method to regenerate trees. It involves the selection, pruning and protection of stumps of cut-down (but alive!) trees. Besides these existing trees, Treecovery also uses naturally sprouting seeds to grow new trees.

Grazing management:

Restoration of degraded areas through controlled or restricted grazing, by promoting and improving grazing rules and bylaws. So-called grazing reserves only allow grazing during certain parts of the year, while our physical intervention areas (such as bund plots) are restricted for grazing to allow these areas to be restored.

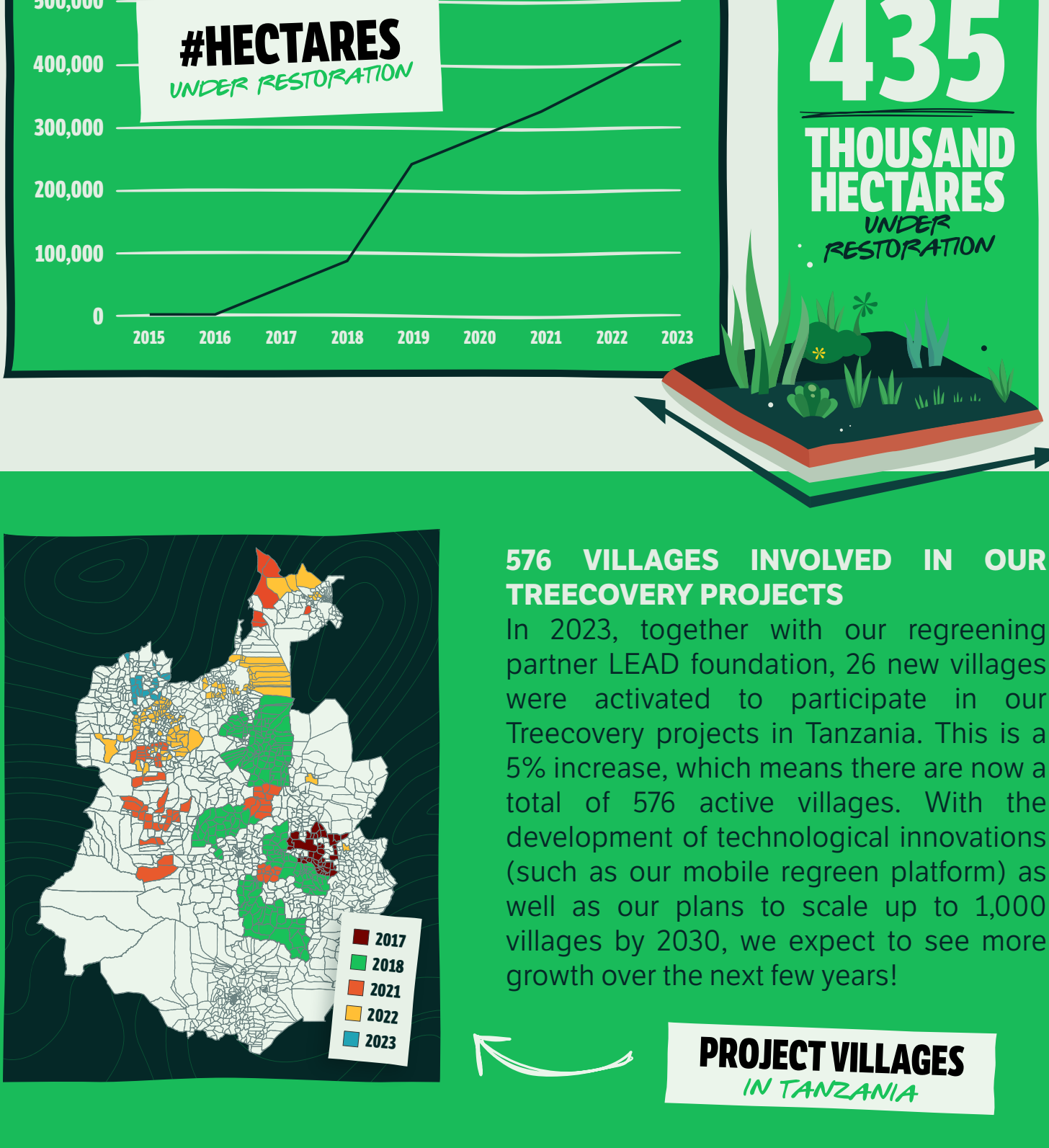
Grass seed banks:

Small parts of communal land are used for the production of grasses and grass seeds. These areas are managed by community-based women's groups (mainly Maasai), who sell the grass seeds on local markets or to regreening projects such as our bund plots for additional income.

IMPACT FACTORS IN 2023: EL NIÑO ARRIVED

Droughts and climate variability have intensified over the past few decades in Sub-Saharan Africa. Especially in the last few years, things have gotten worse. 2022 was for example a year characterised by a long-lasting drought with devastating effects on animals and people in our landscapes.

In 2023, we experienced the other end of the spectrum with the El Niño rains. Most of our landscapes experienced rainfall above the 42-year average. This had a positive influence on our regreening efforts within these landscapes, where the women's groups that own the grass seed banks were encouraged by a good harvest of grass seeds and hay. Sadly, this was not the case for all landscapes. Despite the El Niño rains, some areas such as the Lenkism grass seed bank did not receive adequate rainfall. As we are now entering the long rainy season of March-April-May 2024, we hope this region will receive some significant rainfall as well.



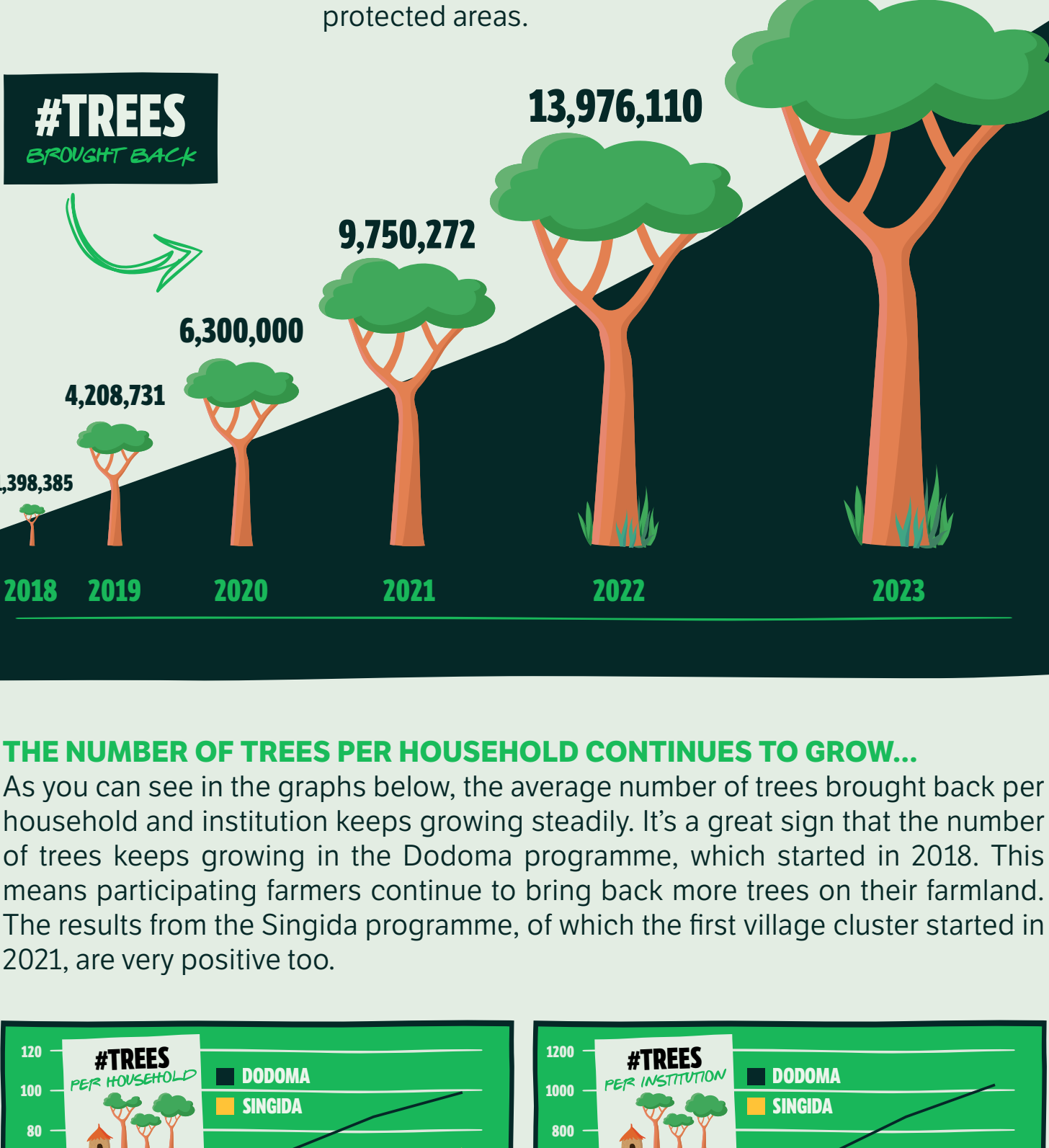
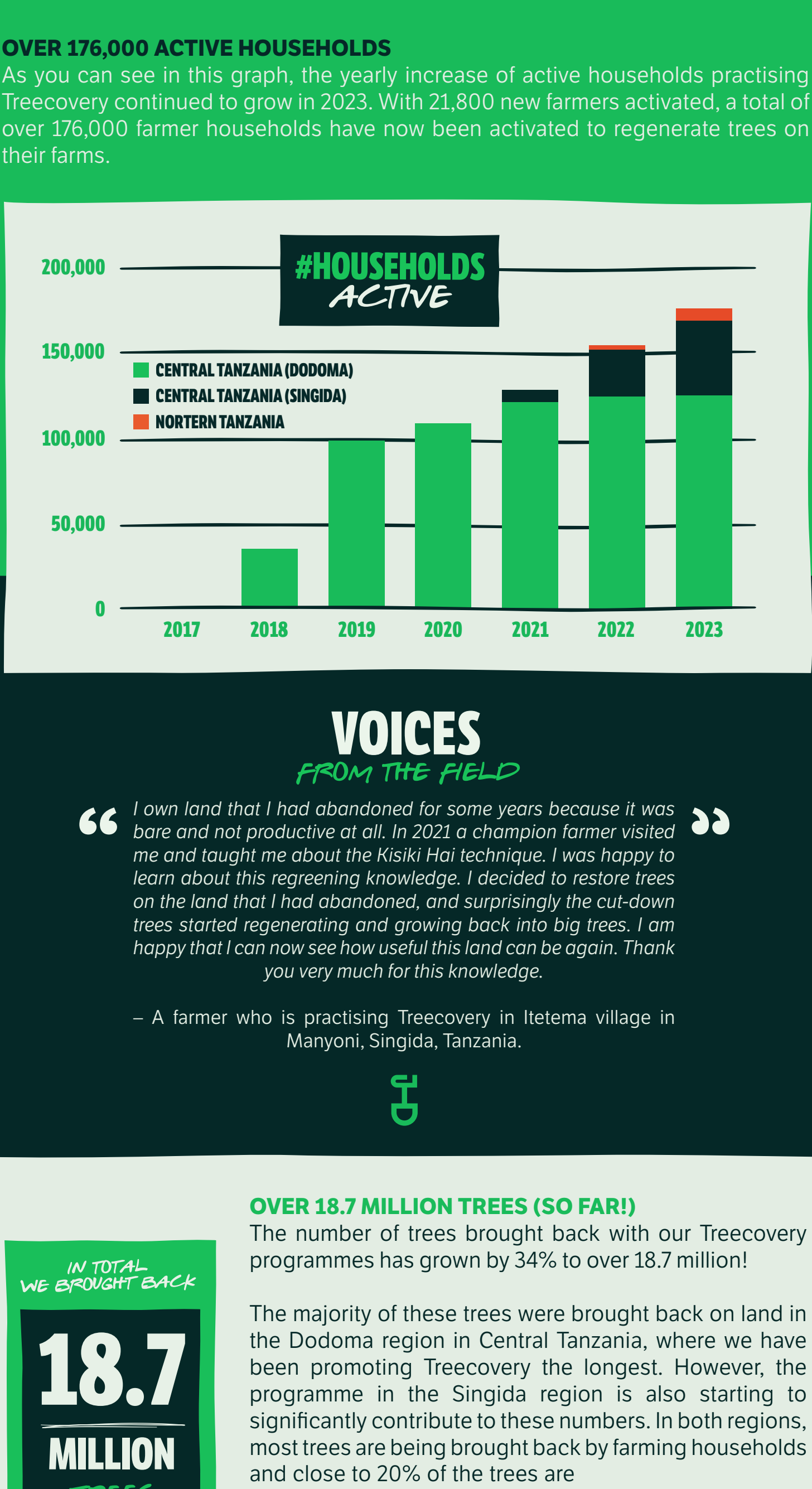
PART I: LET'S DIG INTO OUR IMPACT...

REGREENING PROGRAMMES

ALMOST 435,000 HECTARE UNDER RESTORATION

In 2023, the total area under restoration increased by 14% to almost 435,000 hectares. That's 41 times the city of Paris that is being regreened as we speak!

This figure includes all rangelands and farmlands where we are actively regreening. It is based on the average farm size of active farmers and the total area covered with water harvesting trenches, bunds, grass seed banks and grazing reserves.



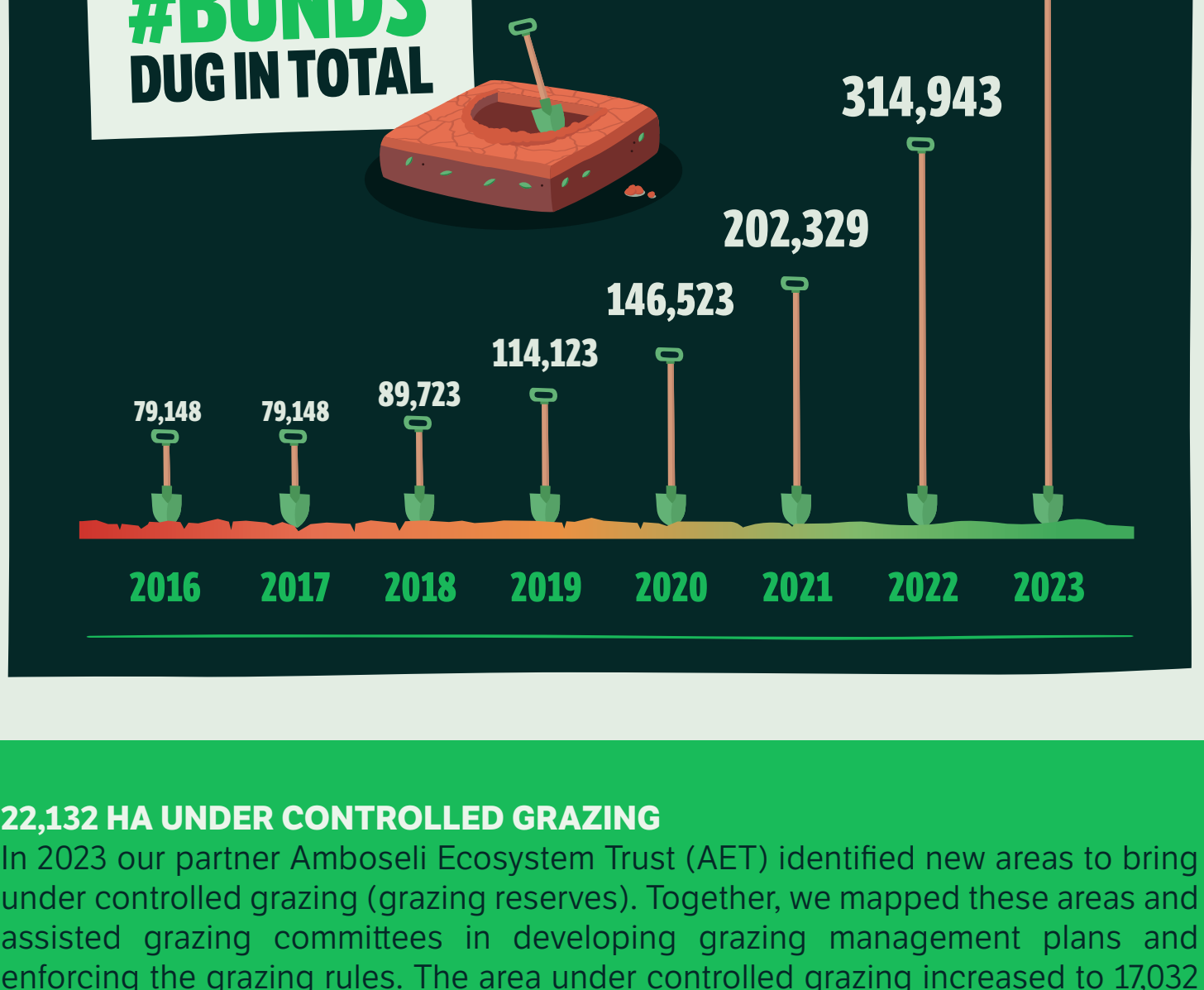
ALMOST 2,300 CHAMPION FARMERS

In every new village where we work our regreening partners, such as LEAD foundation, train on average four well-respected and highly skilled farmers to become champion farmers. We always try to maintain a 50/50 ratio between men and women. By completing the training, they become ambassadors of regreening that help inspire and train other farmers in the community to get started with Treecovery.

In 2023, we trained 115 new champion farmers in the Central Tanzania and Northern Tanzania project areas. This means we're now close to 2,300 champion farmers in total. This is vital for the development of a grassroots regreening movement, as each champion farmer will activate about 110 new farmers!

OVER 176,000 ACTIVE HOUSEHOLDS

As you can see in this graph, the yearly increase of active households practising Treecovery continued to grow in 2023. With 21,800 new farmers activated, a total of over 176,000 farmer households have now been activated to regenerate trees on their farms.



VOICES FROM THE FIELD

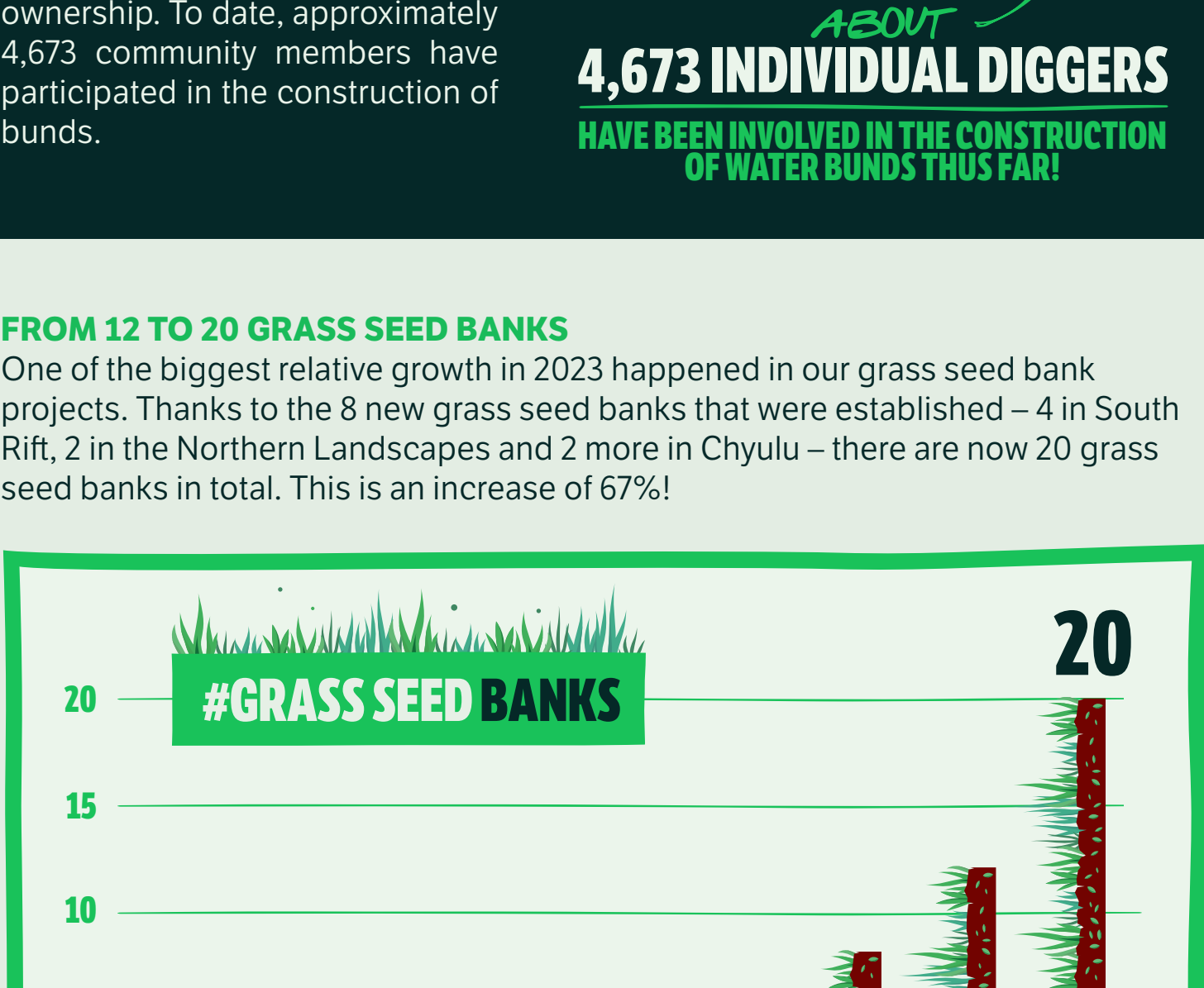
"I own land that I had abandoned for some years because it was bare and not productive at all. In 2021 a champion farmer visited me and taught me about the Kisiki Hai technique. I was happy to learn about this regreening knowledge. I decided to restore trees on the land that I had abandoned, and surprisingly the cut-down trees started regenerating and growing back into big trees. I am happy that I can now see how useful this land can be again. Thank you very much for this knowledge."

— A farmer who is practising Treecovery in Itetema village in Manyoni, Singida, Tanzania.

OVER 18.7 MILLION TREES (SO FAR!)

The number of trees brought back with our Treecovery programmes has grown by 34% to over 18.7 million!

The majority of these trees were brought back on land in the Dodoma region in Central Tanzania, where we have been promoting Treecovery the longest. However, the programme in the Singida region is also starting to significantly contribute to these numbers. In both regions, most trees are being brought back by farming households and close to 20% of the trees are regenerated by institutions, such as schools, churches, mosques and communal protected areas.



THE NUMBER OF TREES PER HOUSEHOLD CONTINUES TO GROW...

As you can see in the graphs below, the average number of trees brought back per household and institution keeps growing steadily. It's a great sign that the number of trees keeps growing in the Dodoma programme, which started in 2018. This means participating farmers continue to bring back more trees on their farmland. The results from the Singida programme, of which the first village cluster started in 2021, are very positive too.

195 KM OF WATER TRENCHES

In 2023, 55 kilometres of water harvesting trenches were dug. These 2,319 brand-new trenches bring us to a total of almost 195 kilometres of water retaining trenches in our project areas.

ALMOST 140,000 NEW BUNDS IN 2023!

139,947 bunds were dug in 2023. We have now come to a total of 454,810 bunds, which are all ready to capture rainwater and transform large areas of land.

22,132 HA UNDER CONTROLLED GRAZING

In 2023 our partner Amboseli Ecosystem Trust (AET) identified new areas to bring under controlled grazing (grazing reserves). Together, we mapped these areas and assisted grazing committees in developing grazing management plans and enforcing the grazing rules. The area under controlled grazing increased to 17,032 hectares. Together with 5,100 hectares of land covered with bunds, which are also protected from overgrazing, the total area under controlled grazing increased to 22,132 hectares.

6.6 BILLION LITRES OF WATER RETAINED

The total water volume captured through our interventions is estimated to be over 6,600,000,000 litres in 2023.

COMMUNITY ENGAGEMENT: 4,673 DIGGERS ENGAGED

All of our landscape restoration projects are community-led as this ensures the continuation of these projects. We involve community members to take part in the digging activities at our bund plots to enhance community ownership and create additional household income for the participants. Usually, digging a new bund plot is done by different communities, as this further increases community ownership. To date, approximately 4,673 community members have participated in the construction of bunds.

FROM 12 TO 20 GRASS SEED BANKS

One of the biggest relative growth in 2023 happened in our grass seed bank projects. Thanks to the 8 new grass seed banks that were established – 4 in South Rift, 2 in the Northern Landscapes and 2 more in Chyulu – there are now 20 grass seed banks in total. This is an increase of 67%!

415 WOMEN ENTREPRENEURS

All the grass seed banks are owned, managed and maintained by women's groups. We support them in growing, harvesting and selling the grass seeds, so they can earn an independent income to support their family and community.

For the 8 new grass seed banks that were established last year, we engaged 143 new women from the communities. This brings the total number of women involved in the grass seed bank projects to 415 – an increase of 53%.



230 BAGS

OF GRASS SEEDS HARVESTED!

230 BAGS OF GRASS SEEDS HARVESTED
A total of 2,305 kilograms = 230 bags (!) of grass seeds were harvested in 2023. Almost all grass seed banks in Chyulu and Amboseli had a harvest in 2023. The women in Chyulu and Amboseli generated income by selling grass seeds at a rate of 600 Kenya shillings per kilogram. In total, the women received close to 1.4 million Kenya shillings from the sale of grass seeds.

VOICES

FROM THE FIELD

“ This project has brought us a lot of unity and a sense of belonging among the women. We not only grow the grass, but we also get time to share the challenges we are going through individually and get to encourage each other. ”

– Member of a women's group of the Noonkotiak grass seed bank

BOOSTING OTHER PROGRAMS

We believe that large-scale greening is only possible when it's done together. That's why we are partnering with large International Non-Governmental Organisations (INGOs) to leverage our expertise in communication strategies to enhance the scale and effectiveness of existing landscape restoration programmes. We call this 'Boosting Other Programs.'

The Forests for Future (F4F) programme

This initiative – a collaborative effort with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH across Togo, Ethiopia, and Madagascar – significantly enhanced the visibility and impact of efforts to restore degraded forest landscapes, promoting sustainable land use and biodiversity conservation. In Ethiopia, our communications strategy was vital in reaching a broad audience. We implemented a variety of communication platforms, including TV commercials, radio public service announcements, and rural media packages that reached approximately 800,000 individuals.

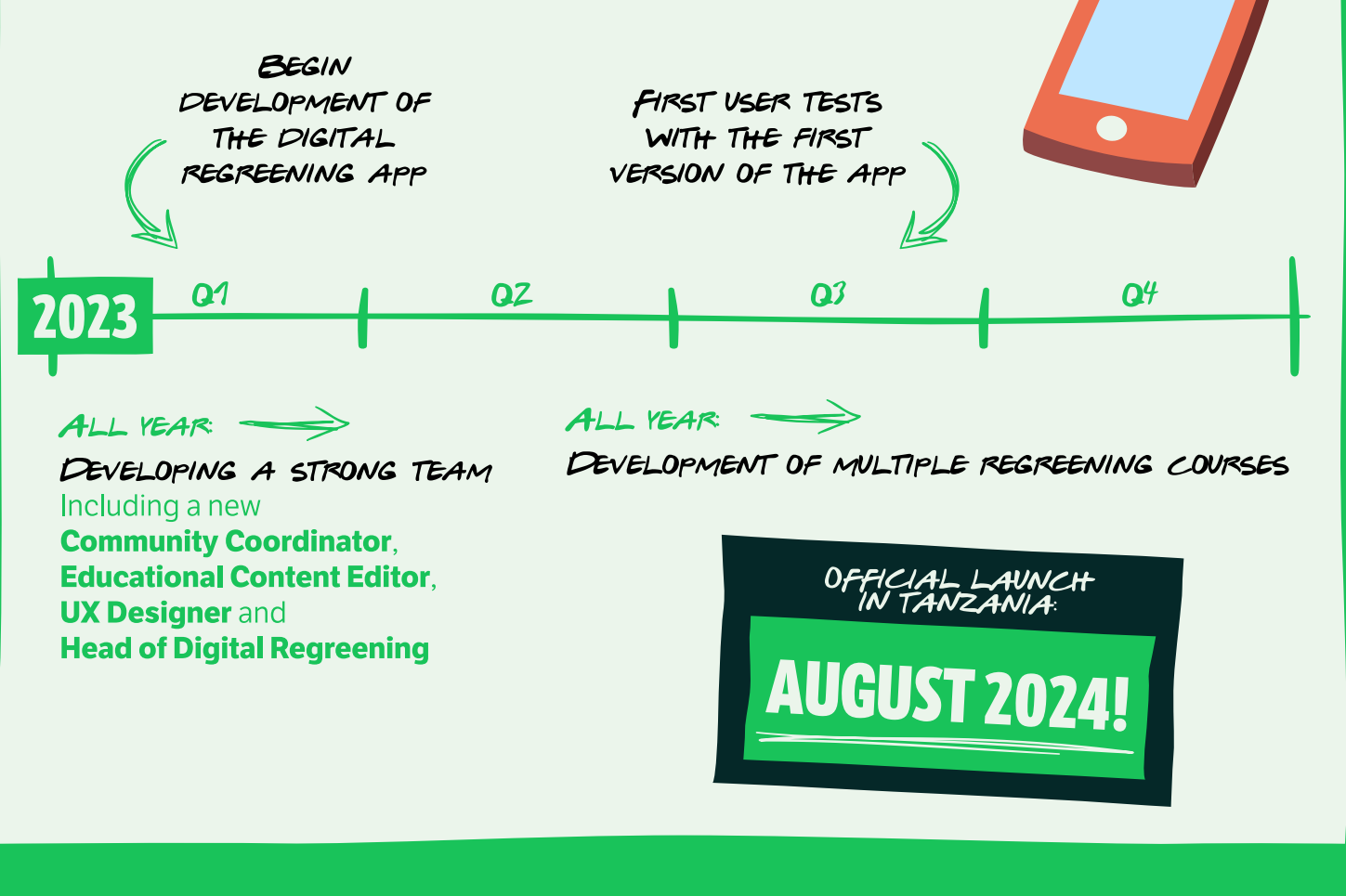
The Restore Africa programme

In 2023 we also kick-started our communication strategy in Kenya under the Restore Africa programme, a consortium that includes WorldVision, Selfhelp Africa, ICRAF, the Greenbelt Movement, Africa Harvest and the AFR100. We support landscape restoration efforts in the region, focusing on supporting local communities and promoting sustainable livelihoods. We conducted a target audience analysis (TAAs) across various Kenyan counties, gathering critical information directly from the communities, which is now used for shaping our tailored communications approach.

DIGITAL REGREENING

In 2023, the development of our Digital Regreening Platform started. This platform is more than a mobile app offering easy-to-understand courses and personalised advice to farmers for regreening land. It also includes voice calling, an SMS service, social media integration and other features that allow us to give users practical support without our physical presence.

We did a lot of user testing in Tanzania inside and outside of our programme areas last year. This taught us a lot about the app's value for farmers, which means we are now ready for its official launch in Tanzania in August 2024!



48,921 farmers reached with our SMS services

In 2023, we provided SMS services to 48,921 farmers sharing encouraging messages, information on regreening techniques, weather and climate updates, and the results and impact of their work thus far. We were already running this service in Dodoma but expanded to Singida and Arusha last year. As a result, 1,518 new subscribers joined this service!

Over 20,000 visitors on Greener.land

Greener.land is a free and easy-to-use online regreening tool we developed with Nature^Squared and SamSamWater. It provides NGOs, governments, other restoration practitioners and farmers with knowledge and information to help them regreen their lands.

In 2023 the Greener.land website received over 20,000 unique visitors from 176 countries across the world. The most popular countries from which the tool was visited were India (20%), the United States (13%), Kenya (11%) and the Philippines (8%). This is encouraging, because it shows that this regreening movement really is a global phenomenon!

AWARENESS CAMPAIGNS

Global & The Netherlands

Our global online and offline awareness campaigns are developed to promote nature-based solutions and to inspire, unite and activate an entire generation, and grow a landscape restoration movement.

AWARENESS HIGHLIGHTS

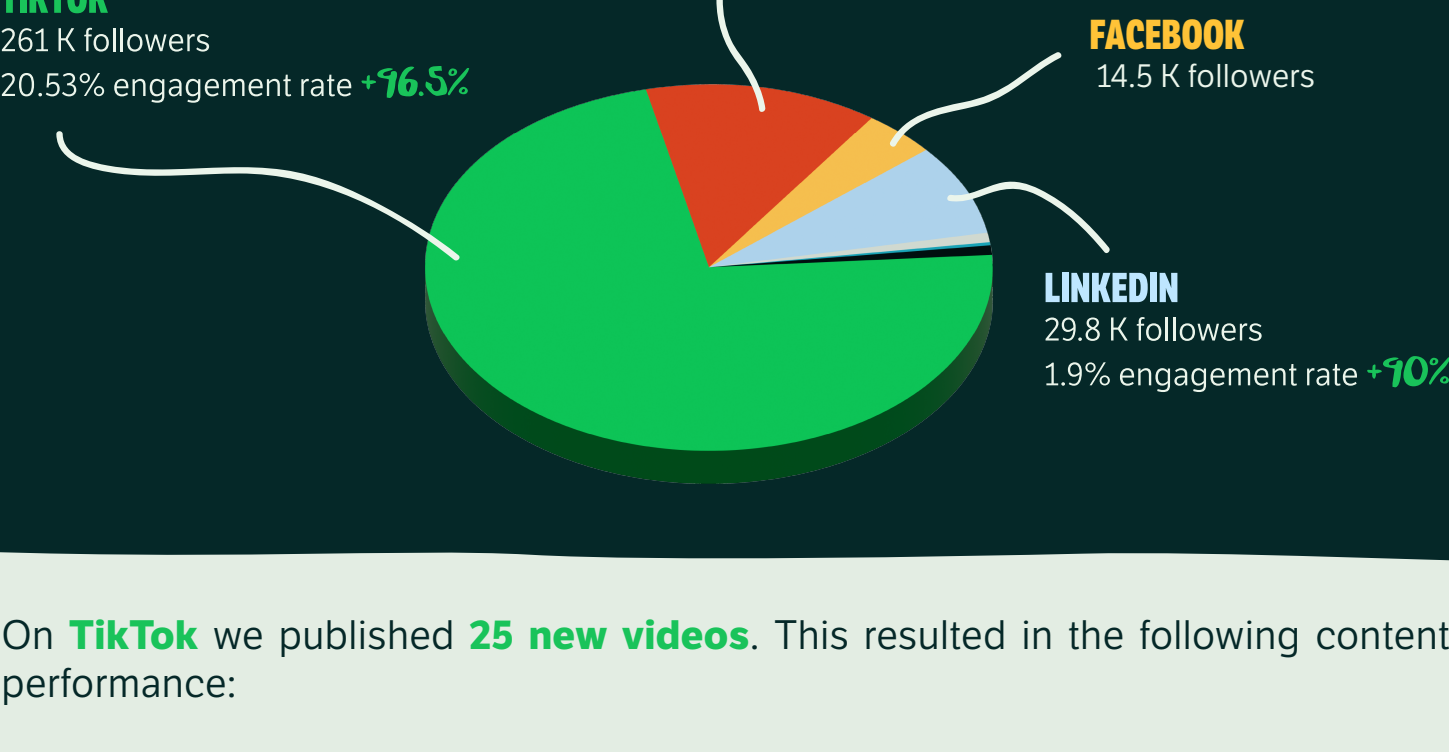
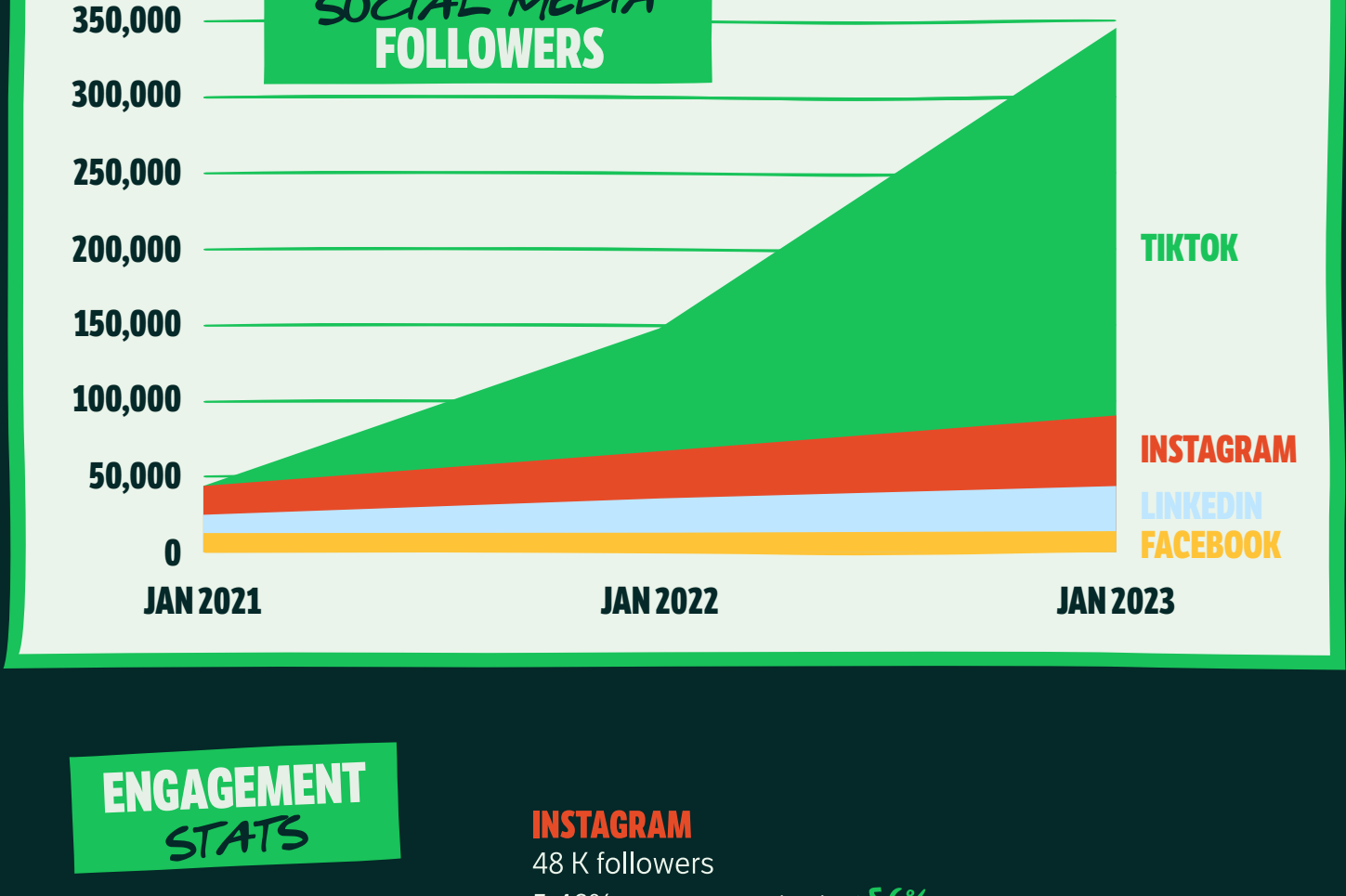
- Our regreening work was showcased on **Piccadilly Lights** in London – Europe's largest and most iconic advertising screen!
- We gained 198,522 new followers on our TikTok account (We're now the **3rd most followed account in The Netherlands!**)
- Several prime-time features on Kenyan television (NTV)
- We were present with a booth during the African Climate Summit
- We've merged the regreening and gaming world by participating in **Jingle Jam 2023**. Gamers raised over £200,000 for our regreening projects!
- We took over the airport of Nairobi thanks to our partner Digital Mara
- The First Lady of Kenya visited our Amsterdam office to explore new partnership possibilities!

198,522
NEW FOLLOWERS
ON TIKTOK

GAMERS RAISED OVER
£200,000

SOCIAL MEDIA IN NUMBERS

We had another year of strong growth on social media, allowing us to spread our regreening message far and wide. Check out the graphs below and let the numbers tell the story!



On **TikTok** we published **25 new videos**. This resulted in the following content performance:

▶ **23.2 M** views ❤️ **2.8 M** likes 💬 **43.4 K** comments ➦ **42.7 K** shares

In Q1 & Q2 we moved up to **#3** in the Dutch TikTok top 25!

“ A new face in the top 10, in an impressive 3rd place, is Justdiggit. This grassroots organisation is taking on the monumental challenge of tackling global warming by making Africa greener. Their presence underlines the importance of addressing crucial global issues on TikTok. ”

- somention.com, news item 16 august 2023

GRASSROOTS COMMUNICATION

Radio is an important communication tool for us. It allows us to directly reach farmers and pastoralists, inside and outside our project areas. Here is an overview of some of our adventures on the airwaves last year.

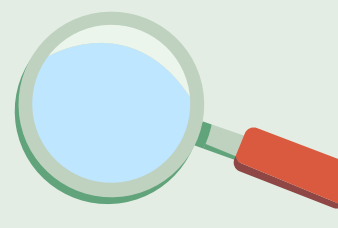
Kenya

Between November 2022 and June 2023, our radio programme was live for 25 weeks in Kenya. We created a campaign to raise awareness and promote engagement in our landscape restoration and conservation efforts together with Havas, Mayian FM, SORALO and the Amboseli Ecosystem Trust (AET). We estimate we reached roughly 1.45 million people every week, with a core audience of farming communities and pastoralists. We specifically engaged community members and other stakeholders within the Maasai communities through targeted messages, inspiring them to actively participate in the project and become valuable contributors to its success.

Tanzania

We also had radio shows in Tanzania hosted by two different radio stations: Manyara FM and Safina FM. The radio shows ran from October 2023 to April 2024. 16 episodes were conducted in each radio station and involved resource persons from Justdiggit, our partner TRIAS, implementing partners, local leaders, farmers and pastoralists.

PART II: HIGHLIGHTS FROM RESEARCH & INNOVATION



We like our work to be evidence-based and are always keen to learn and improve. That's why we collaborate with research partners, facilitate research and innovation projects and thoroughly evaluate our work. Here are last year's most important insights from research and evaluations!

Sustainability evaluation in Dodoma

In 2023, we evaluated the sustainability of the Dodoma programme. The Dodoma programme is our oldest Treecovery programme, and therefore it is important to track and learn about our long-term impact and sustainability. We collected data to review the state of the programme, the attitude, knowledge and motivation of farmers to continue the regreening interventions, areas for improvement and how to further increase and sustain the impact realised so far.

This is what the data tells us:

- We reached all set targets and overachieved on some of them. By December 2023, the programme yielded over 14.7 million trees – way more than the initial goal of 8 million!
- Farmers stay motivated to bring back trees and care for the trees they have brought back, and even continue to add more trees to their farmland.
- The vast majority of farmers do not cut their trees down entirely but only harvest certain parts sustainably. This is great news because the sustainable use of trees is crucial in ensuring sustainable impact!

Making our interventions more climate-resilient

As our projects heavily depend on rainfall, we set up trial plots for several climate-proof solutions last year in our grass seed banks to improve the resilience and success of our projects in case of unforeseen weather events. Examples were combining bunds with manure and super absorbent polymers to improve long-term water retention and infiltration.

We monitored the trial plots bi-weekly to determine the best technique for making the grass seed banks more climate-resilient. This is what we found:

- The construction of several bunds within a grass seed bank improves the climate resilience of the project
- Adding water-absorbent substances like superabsorbent polymers in the bunds proved to be the most effective in making our grass seed bank more climate-resilient

We will use these findings to improve the climate resilience of current and future grass seed banks across our landscapes.

Research project on grass seed banks and land fragmentation

Between July 2023 and April 2024, we facilitated a socio-economic research study in the Chyulu landscape. The study, conducted by a Kenyan master's student, focused on how land fragmentation (caused by changes in land ownership and land use) affects the perceived benefits of grass seed banks on women's livelihoods. We interviewed seven women's groups through household surveys and focus group discussions. In total, 104 members, 17 officials from the government and 3 representatives from supporting organisations were interviewed.

The findings revealed that livestock keeping dominates land use, leading to challenges such as drought vulnerability. Climate change effects, particularly drought, pose significant challenges to pasture growth, livestock health, and water sources. Land fragmentation emerged as a major concern, affecting the establishment and sustainability of grass seed banks. Despite these challenges, grass seed banks were found to benefit women economically and socially, improving household income, nutrition, and community status. Moving forward, the results will be presented and discussed with the team, and follow-up actions will be identified. The report is expected to be finished by May 2024.

Research project on the effect of bunds on water balance

Another master's study is currently underway to assess the effects of bunds on the water balance in the Chyulu landscape in southern Kenya. Soil samples were collected and analysed, along with data on infiltration rates and surface runoff in areas with bunds and without bunds (control plots).

The study hypothesises that bunds have a significant impact on the water balance within the restoration areas, regardless of the soil characteristics. However, as the data collection has been temporarily stopped due to the present rainy season, we do not yet have sufficient data to draw preliminary conclusions. We hope to resume the intensive data collection at the end of the season which will provide better insights and final conclusions.

Ecosystem Health and Grazing Pressure Assessment

In 2023, a group of researchers from Egerton University in Nakuru, Kenya, worked on a method to assess the ecological state of our rangeland restoration project sites. Its goal is to monitor ecosystem health in the sites, going beyond vegetation cover. This is done by assessing the species composition, monitoring the presence of indicator species, the presence and health of trees and shrubs, and observing signs of soil erosion and degradation.

Additionally, the tool can be used to quantify the amount of biomass available for grazing, and turn this into concrete grazing advice. Using a simple data collection tool, it can be used to calculate the number of cattle, goats and sheep that can graze in an area without overgrazing it. In the coming year, we will explore if and how we can integrate this tool in our ongoing monitoring of restoration sites.

Scientific publications

Two scientific papers that focus on our programme areas, have recently been published.

Led by a researcher from the London School of Hygiene & Tropical Medicine, in collaboration with LEAD Foundation and Justdiggit, a study was done to understand the perceived effects of FMNR (Treecovery) trees on various health and wellbeing aspects. Several discussion groups were held with people from program villages. The discussions showed how Farmer Managed Natural Regeneration has been reversing decades of land degradation, with numerous cascading benefits for the environment and human health. FMNR was found to be effective in adapting to the effects of climate change by cooling the surroundings, the participants also reported positive effects on sustained food and nutritional security, improved air quality, increased water availability and better income diversification which supported gender equality. A key message from the study is that recognising the associated health and well-being impacts of natural regeneration can encourage the uptake of regeneration practices and therefore support conservation goals (Murage et al., 2024). The full article can be found [here](#).

Reference:

Murage, P., et al (2022). Natural regeneration of drylands and associated pathways to human health outcomes: perspectives from rural households.

Another article was written by researchers from Planet after the successful research program Restore-IT. This project, funded by the European Space Agency (ESA), aimed to “quantify the environmental impact of landscape restoration using long-term and high-resolution satellite observations”. The researchers focussed on bund programs in Pembamoto (Central Tanzania) and Kuku (Chyulu Landscape). The findings were significant, as “in Tanzania, we found an increase in the amount of water retained by the soil ($\sim 0.01 \text{ m}^3 \text{ m}^{-3}$, $\sim 13\%$ average increase), a soil temperature drop ($\sim -0.5 \text{ }^\circ\text{C}$) and an increase in surface greenness ($\sim 50\%$ average increase) in 3,5 years” (Van der Vliet et al., 2023). The full article is expected to soon be published [here](#).

Reference:

Van der Vliet, et al. (2023). Quantifiable impact: monitoring landscape restoration from space.

We'd like to use this opportunity to sincerely thank everyone involved for their efforts to make this work possible!

WHAT'S NEXT...

Although our impact thus far has been impressive, it's currently not enough to reach our ambitious goal of enabling 350 million farmers in Sub-Saharan Africa to cool down their land. However, in 2023, we took important steps to take our impact to the next level: going digital.

With our new Digital Regreening Platform that will be launched in Tanzania in August 2024, we can leverage over a decade's worth of experience in land restoration and (grassroots) communication and start scaling up exponentially. This way, we hope to utilise the full potential of mobile technology to make regreening as accessible as possible and bring all aspects of our work together in one big regreening movement for the benefit of our planet.

Of course, we cannot do this alone. For this year and the years to come, we will focus on innovation and collaboration with individuals and organisations worldwide. Whether through scaling our programmes, embracing digital solutions, or strengthening partnerships, there are endless opportunities to make a difference.

As we enter a new era of regreening, we invite you to join us on this journey of hope, scaling, and innovation. Together, we can turn the tide of desertification, restore ecosystems, and create a more sustainable future!

JUSTDIGGIT

COOLING DOWN THE PLANET