

THE HUMAN IMPACT OF REFORESTATION

WeForest: Mara, Tanzania



Introduction

As part of Circular Computing's commitment accelerating the race to net zero, we have been proudly partnered with the reforestation charity WeForest since 2017.

Our partnership with WeForest was where it all began for us, as we wanted to utilise the sequestration of CO2 by planting five trees for every laptop sold, and the recent inclusion of a further 5 trees for each purchased through our ITAD programme, alongside our other sustainable initiatives.

With the introduction of the Circular Computing™ ITAD programme in 2021, another 5 trees are to be planted for every unit we purchase from our ITAD partners. In addition, we partnered with One Tree Planted, who run reforestation programmes in California in the United States.

Over the course of the trees' lifetimes, sufficient CO2 will be sequestered to compensate the emissions associated with

the remanufacture of the computer and the first three years of use, helping mitigate climate change.

The forests that Circular Computing™, its customers and suppliers (such as yourself) are restoring, will alleviate poverty through income diversity for the poorest communities,

and restore soils, water and biodiversity. Alongside these factors, the human impact behind these initiatives cannot be understated.

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Reforestation and the diverse communities of Mara

Circular Computing™ have, to date, invested in core reforestation projects within four countries through WeForest: Tanzania, Zambia, India and North America.

Looking firstly at Tanzania, Circular Computing™ have been responsible for 46,383 trees being planted thus far in the Mara region of the country and our ITAD programme aims to plant many more. In Mara, the extraction of resources from forests has caused local smallholder farmers to struggle with infertile soil, low water tables and erratic rainfall. Seedlings are grown in nurseries and distributed to the people that need it most.

The main aims of the project based in Mara

are to: restore the native forest, increase food security, create access to clean water and promote access to medicinal and other forest products and secure a regular income for the local villages.

We work with two main nurseries Butiama, Kinesi and Circular Computing™ helped build another nursery at Utegi on the 6th of May 2021. The local community are trained in these nurseries and women are especially encouraged to take up these activities.

The human factor in Mara


One exceptional example of how local women benefit is farmer Esther, in the Butiama district.

Esther has a small plot of just 3 acres and started planting trees in 2013. Her last planting was done in 2019 and the total number planted is a little under 500 trees. She has maize, cassava, millet and beans as agricultural crops, and combines beans with Grewia trees.

Since 2011, WeForest has distributed more than 1 million tree seedlings to farmers,

farmer groups, churches and schools in the Mara region of Tanzania. These trees and shrubs are planted in and around crops and pastureland, creating a forest and farming system: agroforestry. The value of an agroforestry system is in its diversity, selecting and distributing a variety of environmentally and socially appropriate tree species. Nurseries here grow between 45-70 species each year.



A photograph of a nursery field with rows of young green trees. In the background, a person wearing a red shirt and blue pants is bent over, working in the field. The foreground is filled with a dense field of young trees with green leaves and reddish-brown stems.

Since 2011, WeForest has distributed more than 1 million tree seedlings in the Mara region of Tanzania.

The value of agroforestry

First, what is agroforestry? Agroforestry combines agriculture and forestry: trees and shrubs are grown around or among crops or pastureland.

Agroforestry plays a critical role in successful forest restoration by reducing the pressure on forest resources and incentivises sustainable forest management by alleviating poverty; compensating the loss of access to forest resources; and by ensuring reliable incomes to fund sustainable forest management.

The value of an agroforestry system is in its diversity; selecting and distributing a variety of environmentally and socially appropriate tree species. In Tanzania, the programme grows between 45-70 species each year that have specific uses.

Some trees, such as fruit and nitrogen-fixing trees, are pruned year after year providing food, soil fertility and numerous other benefits. Of course, all the types of trees sequester carbon as they grow.

Other successes in Mara: training and development

If we look at another member of the Mara community, Patrick Kazi, he now has 400 avocado trees, each of which provide on average annually 200 fruits which give him an income of over \$3,000 – and he gets an additional \$750 per year from his papaya and lemon trees.

This would not have been possible without the intervention of the WeForest partnership and reforestation in the region. Patrick now has a thriving business enterprise as a direct, tangible advantage from this environmental and social development.

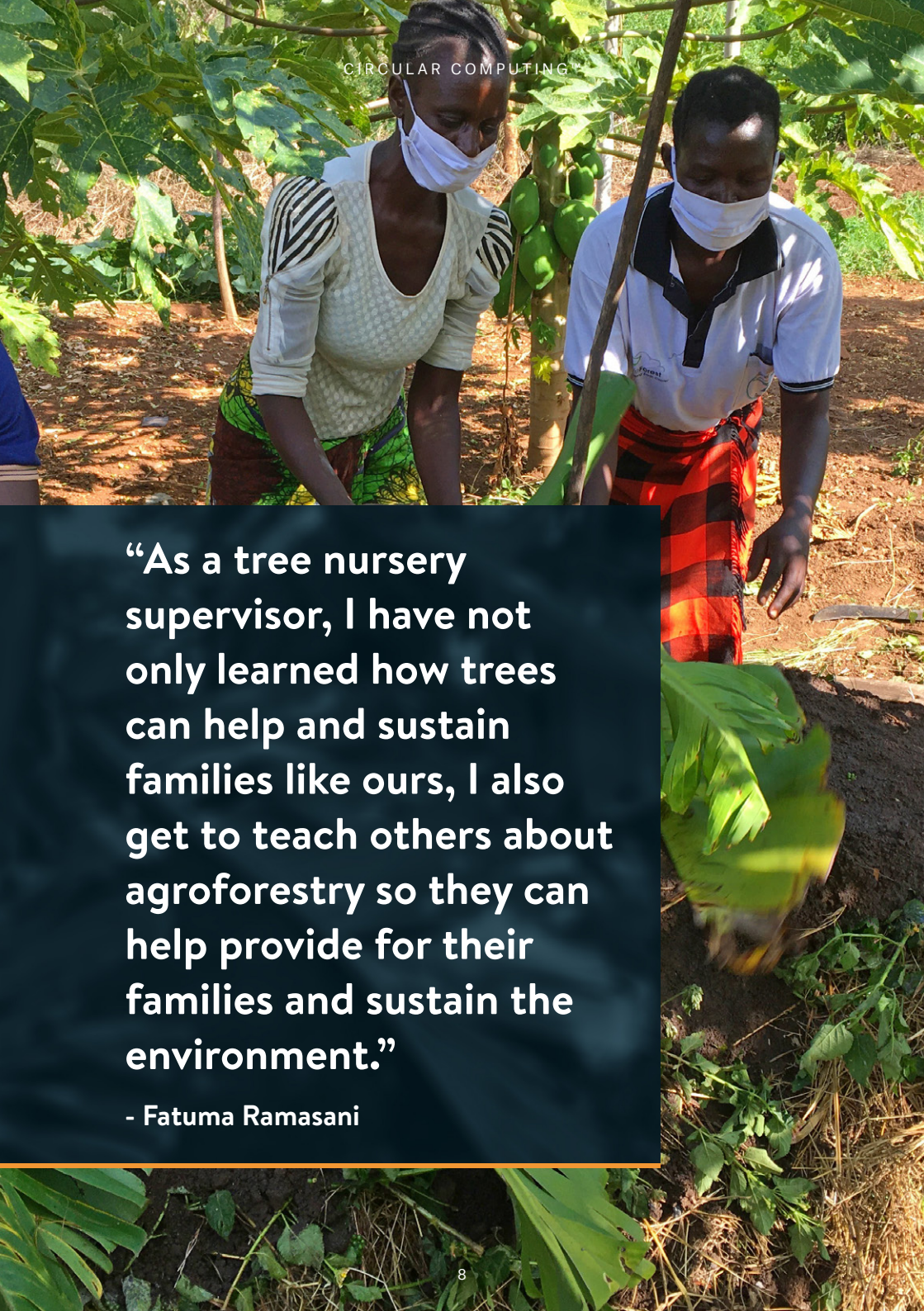
Training in our sponsored nurseries leads to successes like the ones above as well as selfstarters like beekeeper farmer Cobra M. in the Butiama district who started planting trees in 2015.

He has a 20-acre plot, 75% of which he has planted with trees. Many are orange and lemon trees which attract bees, so in 2020 he built 7 beehives himself. There is a big demand for honey, which sells at 10-12,000 shillings (€3.50 to €4.20) per litre.

The Tree Planting Coordinator and WeForest Project Manager, in the last year alone taught four intensive theoretical and practical workshops to the staff at both the Kinesi and Butiama nurseries. They trained on agroforestry design and

mapping, nursing and out-planting trees in agroforestry techniques, perma-gardening & composting, pruning and harvesting trees and integrated pest management. The Butiama Supervisor said: "I am very happy with the training we have received on agroforestry. I now know how to better manage the seedlings in our nursery and how to teach beneficiaries how to best plant them in their farms for the greatest impact."



A woman and a man are working in a tree nursery. The woman, on the left, is wearing a white face mask and a white top with black stripes on the sleeves. The man, on the right, is also wearing a white face mask and a white polo shirt with a logo. They are both looking down at a plant in the foreground. The background shows rows of young trees in a nursery setting.

“As a tree nursery supervisor, I have not only learned how trees can help and sustain families like ours, I also get to teach others about agroforestry so they can help provide for their families and sustain the environment.”

- Fatuma Ramasani

Families sustained by reforestation in Mara

Shida Ramasani and his family harvest timber annually from their thousands of trees, and replant after each harvest to ensure the sustainability of their livelihood.

Two hundred trees are harvested on average each year for \$650. From this profit, Shida is building a new house on his father's land and was also able to purchase additional land for his sons to inherit when they come of age. Shida and Fatuma harvest firewood from their trees every 3 months for an additional \$65, which goes to support the purchase of household necessities, school uniforms and books.

"My wife and I have been staff for many years and we have not only benefited from receiving the seedlings each season to plant on our land, but also from the training we have received on tree nurseries and agroforestry," he says.

His wife, Fatuma Ikongora, adds: "I did not know much about trees or their benefit before working with WeForest. I have not only learned how trees can help and sustain families like ours, I also get to teach others about agroforestry so they can help provide for their families and sustain the environment."



Other successes in Mara: training and development

Ghati Mwando has planted nearly 150 trees on the plot surrounding her home over the last 8 years.

She has been able to generate a bi-annual income from her multi-purpose trees (fuel/fodder/fertilizer). Each June and December she harvests firewood and receives an average of \$15-\$20.

This extra income twice a year allows her to purchase household necessities such as salt, sugar and flour. She has also used this money to boost her fish-selling business. Ghati and her family live near the shores of Lake Victoria, and so she can purchase fish directly from fishermen and then sell them in the larger town of Musoma at a profit.



Benefit through reforestation

These success stories are only possible through the continued commitment and contributions of companies like Circular Computing™ to the area, funding the invaluable training at the Mara region nurseries; including tree planting and farming carried out by the community themselves as a direct consequence.

By providing this support and the farmers such as Esther, Patrick Cobra and Shida carrying on the propagation of trees and

the nurturing of bees, and thus the positive regeneration of the region, both in terms of agroforestry and social impact can flourish and progress, year on year.

Even more is achieved, as the ITAD programme incorporates its 5 additional trees at supply through Circular Computing™, which means we can effectively double the carbon sequestration and further diversify income in Mara per laptop unit.

Making a crucial difference through reforestation

Project Summary

“In Mara, the extraction of resources from forests has caused local smallholder farmers to struggle with infertile soil, low water tables and erratic rainfall. Seedlings are grown in nurseries and distributed to the people that need it most. Through agroforestry systems on their farms and schools, the farmers and institutional beneficiaries are able to grow their own fodder, fuelwood, fiber, fruit and timber, and so no longer need to depend on forests for consumption or income generation.”

- WeForest

Mara Project:

Project timeline:

2011- (ongoing)

Project Status:

Over 1.5 million seedlings of over 60 species distributed to more than 4,000 farmers and 500 institutions

Restoration Approach:

Planting and Agroforestry

800 community members trained in agroforestry and silviculture

WeForest’s projects impact the following United Nations’ Sustainable Development Goals (SDGs)



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