WeForest
Making Earth Cooler

Tanzania
Mara

Yearly report 2020

Transitioning villages to agroforestry

Mara region, Northwestern Tanzania

2020 was a difficult year for so many people. While Tanzania was not spared from Covid-19, thankfully for the local population here the impact has been low, and there has been good news from Mara.

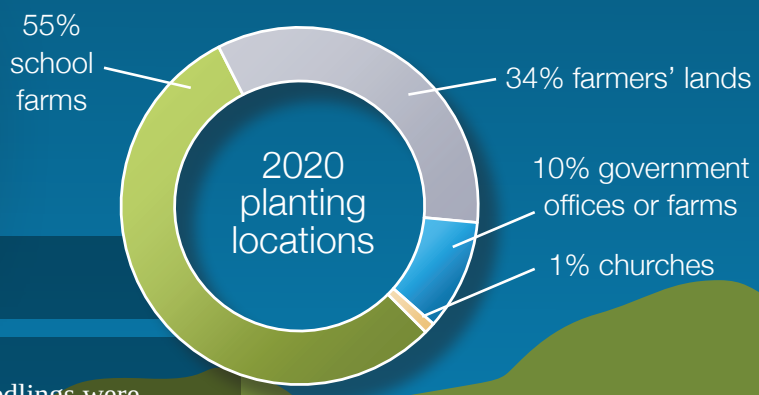
- We met **96%** of our seedling distribution targets; school closures due to Covid-19 meant we couldn't quite make it 100%.
- A survival rate survey showed we are exceeding the 80% target; survival is at **81%** (see May for more).
- A new **monitoring system** to track the progress of trees is underway (see July for more).
- **Awareness-raising** for tree planting continued on four media platforms – local radio, television, posters and WhatsApp groups. This resulted in an increase in customers from 700 in 2019 to 1433 in 2020, and 576,343 seedlings distributed in 2020 compared to 315,992 in 2019.
- **Agroforestry training** went well, training more individuals than we expected due to the higher interest from school environmental clubs.
- New political leaders were elected in the communities where we are working, and we're pleased to see that **political support** for the project continues.
- 2020 has seen a marked slowdown of interest in seedlings from Kinesi nursery. It seems the local community has already planted as much as they can! During 2021 the nursery will be closed and a **new one opened in Utegi** – 75km away – where demand is higher. Five out of the nine Kinesi nursery staff will transfer to the new site at Utegi, though the rest will not make the move for family reasons.

This report shares an update of our progress during 2020. Thank you for all your support!

2020 in **PICTURES**

2020 in **NUMBERS**

Since 2011 **WeForest**, in partnership with the **Global Resources Alliance (GRA)**, 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.



Seedlings

576,343 tree seedlings were distributed in 2020 (1,598,910 trees planted from 2011 to end 2020).

2 nurseries each supplied around 50% of the seedlings.

We far exceeded our 10,000 target of nitrogen fixing trees due to high demand from communities and schools – 25,506 tree seedlings were planted. 17,803 seedlings were *Albezia lebbeck* and 7,703 were *Gliricidia sepium*.

3% (15,953) of the seedlings were sold in the trial of subsidized seedling sales.

Tree survival rate was 81% (against a target of 80%).

Beneficiaries

Of the 439 recipients, 275 were primary schools, 96 secondary schools, 61 government offices, 37 churches and 17 community-based organizations or NGOs.

The project has had 4,709 customers in total since 2011.

800 participants were trained on best silvicultural practices. 72% (574) were teachers and school environmental club focal persons, 26% (210) individual farmers and 2% (16) church leaders.

A total of 268 school environmental clubs have been established (135 in 2020) with school management to cultivate environment-loving habits among youth and children.

JAN

Training, seedling management, prep. of planting pits, seedling transportation

FEB

Tree audits and (re)training across schools and farms

The busiest spring month for seedlings

Distribution of tree seedlings occurs during the March to April and September to October rains. The nurseries were able to distribute over 150,000 seedlings (26% of the 2020 total) throughout April. Staff at Kinesi and Butiama worked hard through the month as they implemented best practices in response to the coronavirus. Staff were informed on ways to protect themselves at work and at home. In the nursery, staff wore masks and customers came into the nursery one by one, washing their hands on entry.

Covid-19 arrives in Tanzania

The pandemic meant adjusting schedules, drafting information for the staff, purchasing necessary supplies such as gloves, sanitizer, soap and bags for nursery staff, and instituting a new rotational staff schedule to minimize the number of people in each place at any given time.

MAR

Planting

Tree audits and (re)training across schools and farms

APR

Planting

An impressive 81% survival rate

A tree survival survey covered 299 customers who received over 500 seedlings between 2018 up to the second quarter of 2020. Participants included individual farmers (41.8%), primary schools (40.8%), secondary schools (16.7%) and churches (0.7%). Good results were attributed to favourable rainfall in the last two years, and good knowledge and skills in tending to the seedlings. Livestock damage, flood and termite infestations in some areas caused the loss of the remainder.

MAY

Nursery staff workshops

By June, 8 planned workshops had taken place on agroforestry design and mapping, nursing and outplanting trees in agroforestry techniques, permagardening and composting. Training sessions like these help meet the 81% survival rate we saw this year. “I am very happy with the training we have received on agroforestry,” said the Butiama nursery supervisor. “I now know how to better manage the seedlings in our nursery, and how to teach beneficiaries to best plant them in their farms for the greatest impact.”

JUN

Prep. of planting pits, planting seeds

Self-made beekeeper

Farmer Cobra M. in the Butiama district has lived on his land for 25 years, and 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/- (€3.50 to €4.20) per litre. He also planted some 500 *Khaya anthoteca* trees for timber, and he will harvest poles after 3-4 years through thinning.

The busiest autumn months for seedlings

A total of 224,301 tree seedlings left the nurseries in November (118,544 seedlings from Butiama nursery and 105,757 from Kinesi nursery). Over 96% were for schools and the remainder for local farms. One quarter were fruit trees and the remainder timber species.

62,041 seedlings left the nurseries in December, 74% for schools and churches and the remainder for farmers. As well as providing shade, the trees planted at schools can be pruned for branches that can be used as firewood to cook students' meals, as well as being sold. One school earned $885 from the sale of firewood.

JUL

Prep. of planting pits, planting seeds

AUG

Prep. of planting pits, planting seeds

SEP

Planting

OCT

Planting

NOV

Monitoring and evaluation, mapping

Agroforestry training sessions

DEC

Agroforestry training sessions

Beans among timber

Farmer Esther N. in the Butiama district 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. These attain a diameter of 40-50 cm in 10-13 years and give good timber for the family's own construction needs, as well as firewood via pruning in the meantime.

Never stop learning

Training visits are key to tree survival – they ensure that people know how to prepare land before planting, as well as how to look after the seedlings. In addition to individual sessions with schools and churches, 5-6 farmer groups are visited and trained monthly. Sessions include demonstrations of digging holes and soil preparation for tree planting, early tending, watering, weeding, fertilizing, pruning, and thinning. Threats to seedlings include livestock destruction, and training sessions show how covering seedlings with thorny branches or surrounding them with sticks prevents them from being trampled.

What's next?

Seedlings

- Raise 750 000 seedlings.
- Add new indigenous tree species to the nursery, such as *Kigelia africana, Balanites aegyptiaca, Acacia polyacantha* and *Tamarindus indica*.
- Open a nursery in Utegi that will replace the Kinesi nursery in the second half of the year while seedling production remains stable.
- Increase the subsidised seedling sales from 3% in 2020 to 10% in 2021.

Agroforestry

- Start an agroforestry demonstration plot at the Butiama nursery. Organise 12 Farmers Field Schools that will allow at least 120 farmers to be trained intensively. Evaluate and determine the level of upscaling possible in the next year.

Restoration

- Explore the option to restore a degraded Forest Reserve by the Forestry Department in the area and to manage it with a buffer zone as a community forest.

What is agroforestry?

Agroforestry combines agriculture and forestry: trees and shrubs are grown around or among crops or pastureland. It plays a critical role in successful forest restoration by:

- reducing the pressure on forest resources and incentivise sustainable forest management by alleviating poverty;
- compensating the loss of access to forest resources;
- 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, our programme grows between 45-70 species each year that have specific uses. Some trees, such as timber, are harvested and ideally replaced. Others, 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.

WeForest
Making Earth Cooler

Don't forget to check out your Mara, Tanzania **photo album** on Flickr.