



Mara & Butiama Hills

Restoring the Butiama hills and transitioning villages to agroforestry

Annual Progress Report 2022



Summary

Our project in Mara, on the banks of Lake Victoria, is one of WeForest's longest-running projects.

Established in 2011 when WeForest was just over a year old, it began as a project that supported the production and distribution of seedlings from nurseries to rural people and institutions that needed them the most. It grew to support farmers and local community organisations to develop agroforestry systems, and is now evolving into a Forest and Landscape Restoration project by protecting and restoring the surrounding Butiama hills.

2022 saw us exceed our target, with 819 548 trees planted. In future years, the participating families and institutions will continue to receive follow-up visits and support from our partner in the field, the Global Resources Alliance (GRA), and Butiama nursery will continue to provide seedlings for agroforestry and livelihood support, including teak seedlings.

Last year also marked the start of the scaling up towards the eight-year restoration of 1500 ha of degraded forest on hills 13 km west of Butiama village.

This report shares an update of our progress during 2022. Thank you for all your support!

2022 in numbers

816 554 seedlings raised and distributed (10% more than in 2021)

12 704 of these were nitrogen-fixing trees like *Sesbania sesban*, *Gliricidia sepium* and *Albizia lebbbeck*

51 812 seedlings were sold in the subsidized seedling sales – one third more than in 2021

On-site training was given to **123** farmers and **140** institutions

141 farmers completed a course on improved agroforestry practices

Since the beginning of the project:

3 165 792 trees planted

69 tree species planted



Tree planting and restoration

We exceeded our 2022 target, with 816 554 trees planted

Mara was the project where WeForest planted our five millionth tree, way back in 2014. We're now up to 81 million trees growing globally!

Our target for 2022 was to raise 800,000 tree seedlings of different varieties. In fact, 819 548 tree species were raised, including timber, firewood, fruit, medicinal and nitrogen fixing species.

764 742 of the tree seedlings were distributed for free to 281 public institutions including schools, churches and mosques, while 51 812 seedlings were sold to individual farmers at subsidized prices.

Two nurseries, Butiama and Utegi, have been providing the seedlings for the past couple of years. With the seedling distribution project starting to wind down, GRA and WeForest will operate only Butiama in the future, which will continue to provide seedlings for agroforestry in the new phase of the project.

The nursery at Utegi will be downscaled and supported for another six months with the intention that it is able to run itself by selling seedlings. 2994 seedlings out of the total 819 548 remained at Utegi nursery to boost sales. Their plan is to focus on producing grafted fruit trees that command a higher price.

Seedling sales for long-term sustainability

Farmers have been adapting to the idea of buying seedlings as a result of our awareness campaign, which stresses the importance of tree planting for the future. The nurseries' target was to sell 25% of the tree seedlings raised this year, equivalent to 204 887 seedlings, but only a quarter of this were sold. Unpredictable weather conditions due to a prolonged dry spell meant that farmers were afraid to purchase tree seedlings that might die.

Species preference is another factor that stops farmers from purchasing large quantities of tree seedlings. Eucalyptus is among the species preferred by most farmers for timber, but because of its side effects on the environment – a very high evapotranspiration rate, which drains water from the soil leading to a lower water table – we don't raise it in our nurseries.

The nurseries continue to explore other ways to boost sales, for example by producing grafted fruit trees that command a higher price.





One of the highlights of the tree planting approach has been our success in supporting schools to plant and replenish wood resources, with the trees providing crucial shade for the comfort of students and teachers alike. The money the schools raise from selling fruits and fuelwood has also helped them expand or upgrade their school buildings in some cases. It's wonderful to have made a positive impact on education in this way.

A new phase: Butiama Hills

Our new Forest and Landscape Restoration (FLR) project in Butiama Hills will be carried out in collaboration with five communities – Busegwe, Kigori, Mwikoro, Nyanza and Singu – adjacent to the Butiama hills, near Butiama nursery.

2022 saw a series of sensitization meetings in collaboration with government leaders to tackle misconceptions of the communities surrounding the

hillside project (some assumed that the hills were being sold to investors). These meetings were successful and the communities now understand the project and are supporting all project initiatives. A few farmers remain skeptical about whether their incomes will be replaced when they are no longer able to farm or produce charcoal on the hills – this is understandable and we expect with time any skepticism will disappear when they see the positive impacts this project will bring.

A number of studies took place in 2022 in preparation for this next phase of our work. These included beekeeping and charcoal value chain assessments and improved cook stove assessments, the results of which will be valuable in the planning of the new Forest and Landscape Restoration project. Village land use plans for two of the five villages involved, Kigori and Mwikoro, were also developed. This included creating and installing signs to indicate rules and regulations for various land uses such as water sources, grazing lands and settlements.

In 2023, the 8-year restoration of 1500 ha of degraded forest will begin. Governance and patrol guards will be set up, and the hills will be placed under assisted natural regeneration as we are confident that the area has the potential to regenerate without planting.

The hills are within our project landscape (left) and will continue to be managed on the ground by our partner Global Resources Alliance (GRA), with strong WeForest support in management and recruitment.

Look out for our new Butiama Hills project webpage soon.





Livelihoods

Agroforestry boosts crop yields and can generate income

Since 2020 our seedling distribution project started to focus strongly on supporting the farmers and institutions to set up agroforestry systems with the seedlings they collected. With agroforestry systems on their farms, schools and churches, families and institutions are able to grow their own fodder, fuelwood, fibre, fruit and timber, and so no longer need to depend on local forests for food or incomes.

The project set up demonstration plots at the nurseries and trained the participants on best agroforestry practices. In addition, the agroforestry systems gave us something to measure and monitor in terms of the impact of the project.

During 2022, all the training sessions that had been planned were achieved. The project trained 141 farmers (84 men and 57 women) on improved agroforestry practices, and participants were awarded with certificates after completion of the training course, which was in four sessions. The topics covered include i) agroforestry design and techniques, ii) growing and planting timber and multipurpose trees, iii) perma gardening and composting, and iv) pruning and harvesting and integrated pest management.

As well as at the demo plots in the nurseries, the training

was followed up in the field. The project provided on-site training to 123 farmers (71 men and 52 women) and 112 primary schools, 18 secondary schools, 7 churches, 1 mosque, 1 hospital and 1 public office. Sessions covered the planting and conservation of multipurpose trees, weeding, thinning, site selection and application of manure to improve growth and survival of tree seedlings.

All the agroforestry activities and training will be useful for the development of the agroforestry element of the new Forest and Landscape Restoration project here.

Why are grafted seedlings good for agroforestry?

Nursery staff attended a five day training on grafting and budding at Morogoro Tanzania Tree Seed Agency (TTSA) during 2022. Grafting and budding are horticultural techniques used to join parts from two or more plants so that they appear to grow as a single plant. Grafted seedlings offer more uniform yield, disease resistance and faster ripening. A fruit tree that is grown from seed will not produce fruit for about 10 years, whereas a grafted fruit tree will begin to bear fruit after four years, because the bud used in grafting was already mature.



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 incentivising 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. Planting fast-growing species in dedicated woodlots reduces pressure on the natural and degraded forests we are working to restore. 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.

Please visit our **What We Do** webpage for more information.

What's Next?

For the Butiama Hills project:

- Management, coordination and agroforestry staff members will be recruited.
- Village land use plans for Busegwe, Nyanza and Singu villages will be developed.
- “Butiama Community Forest Reserve” (the restoration area) will be validated by the Ministry of Natural Resources and Tourism, and its boundary demarcated.
- Community governance structures in the participating villages will be set up.
- The participant criteria and terms of reference/rules of engagement for the project’s agroforestry and woodlot schemes will be set up.
- Households will be surveyed to identify 400 farmers in the 5 villages to participate.



Stay up-to-date with your interactive **Mara map**, and check out the **photo album** of the project on Flickr.

Thank you for supporting the Mara and Butiama Hills projects!