

ZAMBIA LUANSHYA

Engaging smallholder farmers in reversing deforestation

Annual Update 2019



The equivalent of over 560,000 football fields of forest (300,000 hectares) continues to be destroyed each year in Zambia, a country facing severe challenges of climate change, food insecurity, environmental degradation, and economic uncertainty. In the Copperbelt, miombo woodland has suffered extensively due to mining, agriculture and charcoal production.



In Luanshya, WeForest works to restore miombo woodlands with hundreds of small-scale farmers. In return for agreeing to restore and protect woodland and harvest sustainably, they are provided with training and tools to diversify their sources of income. As a result, forest growth is accelerated, farmers receive a higher income, diversify their economic activities and learn new skills.

We are delighted to share this update 2019 progress with you!

Your support in Luanshya is contributing to:

- Restoring and protecting almost 4,500 football fields (over 2,400 hectares) with hundreds of smallholder farms regenerating almost **3 million trees!**
- Empowering women to run their own nurseries where they can sell fruit trees to other farmers for a steady income.
- Training bee-mentors that support farmers to develop alternative forest-friendly incomes.
- Planting nutritious fruit trees – 4,600 trees to date.

Thank you!

Our Goals

Forestry

In 2019, 740 hectares (equivalent to 888 football fields) were brought under restoration management bringing the overall total under restoration to 2,405 hectares.

This project uses a restoration method called **Assisted Natural Regeneration (ANR)**, which enhances the establishment of the miombo forest by protecting and nurturing emerging seedlings and protecting new forest growth. The project recruits and trains farmers with at least 0.25ha of Miombo on their farmland to grow trees. This method can accelerate growth and result in greater success compared to transplanting nursery-grown seedlings and can be complemented with **enrichment planting** - enhancing the density of desired tree species - where needed.



Mature Miombo in Luanshya

Community Engagement

In total, 540 households are participating in this project. 127 new farmers began their training in miombo forest management and sustainable harvesting practices in 2019 and signed the rules of engagement in the programme.

47 home-based nurseries have been supported by the project since its inception of which 24 were established in 2019. They are all are led by women.



One of the 47 home-based nurseries



Mango tree

Carbon Sink

Estimated sequestration rates in this region are 145tCO₂/ha and we estimate that the future carbon sequestration of restoration areas to date could reach 328,545tCO₂ over 30 years assuming no significant fires or droughts.

Biodiversity

69 tree species are under restoration including 5 fruit tree species (avocado, mango, two citrus varieties and macademia). 64 of these are native. An endangered eagle (*Stephanoaetus coronatus*) is also found in this area.

2019 At A Glance



During 2019, 113 new farmers (39% women) took part in 2-day training sessions on sustainable forest management and silvicultural practices for sustainable harvest of miombo biomass.

Refresher training: all farmers trained in the previous 2 years including those in the picture above had check-up visits for support.

Over 500 fruit trees were distributed: making it a total of 4,600 nutritious fruit trees since we started. Unfortunately, some died due to drought and disease (in 2019, 166 trees did not survive).

Our aim is that the farmers we train in sustainable woodland management also become involved in honey production to supplement their income, so they do not have to turn to charcoal making. In 2019, 89% of farmers are involved and 9 new bee-mentors were trained so that we now have 15 active mentors. We distributed and mapped the locations of 690 beehives to 141 households. Out of the 582 households to date that have received beehives, 404 households have reported an income from the sale of honey. We'll be tracking this over time to identify how significant a role beehives are able to play as a long term and consistent forest-friendly income.



One of the beehives installed on a farm



Treadle-pump training

New income streams: 2019 also saw the development of two new alternative livelihood strategies for farmers that will reduce the need for charcoal making. In collaboration with the Farmers' Association, WeForest provided initial training on treadle pumps for **irrigation** with 35 people (over a third were women). Better access to water will increase yields for example from vegetable gardens and can improve household income. **Egg production** is another income earner and the first sessions on chickens took place with 91 farmers almost a third of which were women. Kuroiler chickens have been chosen specifically because they are a great egg producers!

Stories from the Field



Tree nursery training

Women-led tree nurseries are developed through a three-step process. On the first training day, women are trained in how to set up a small plant nursery. A month later, and after a visit to their farms by the extensionists has taken place, a second training on fruit tree grafting and budding takes place and, finally, the successful new farmers receive grafting equipment and tree stock as they complete their training.

These proud community members from the different zones of Luanshya successfully finalized a training by WeForest and the Forestry Department in Forest Law application. Certificates were handed out during this official ceremony, making them Community Forest Guards. With their knowledge and practical experience, they will support the protection of the Assisted Natural Regeneration plots in Luanshya.



Evan M participates in the Luanshya project

Evan M. is one of the first farmers in the programme here in Luanshya. Evan grows maize, has started to grow aloe vera. He has signed an agreement to participate in this project which will see him protect and nurture wild tree seedlings on his land. In exchange he received 10 beehives from which he harvested 68kg of honey in June 2019. Evan M. has now joined the chicken training because he wants to diversify his farm and establish a neighbourhood chicken rearing group dedicated to egg production.

Fires have been grabbing international headlines in Brazil and Australia and Zambia was unfortunately not spared. Robert S.'s farm might have been affected by forest fires but thanks to properly maintaining the surroundings of the hive and the supporting trees, they were not affected, allowing a healthy bee colony to thrive!



Hanging a beehive in miombo woodland

Coming up in 2020

- Strong focus on strengthening the Farmers' Association in order to foster greater local ownership over the supporting livelihood activities (self-sustaining model for the irrigation and chicken rearing).
- Continued support and training for women-led home nurseries.
- New Forest Rangers patrolling in the restoration sites to protect the restored area from illegal charcoal production.
- January and April: Vegetation surveys to monitor biomass growth and track species.
- May: new sites for restoration identified and mapped.
- June onwards: maintenance activities in the restoration zones e.g. weeding and pruning.
- August to December: key planting season for fruit trees.
- All year: training activities in Assisted Natural Regeneration techniques (March) nursery training (September).
- June, July, and November: honey harvesting from those over 2 years old.



An aerial view of the farms and forest area in the Luanshya district

For more information on our project in Zambia
<https://www.weforest.org/project/zambia-luanshya>

For more high-quality photos from Zambia [Click here](#)