Seret, Ethiopia
Empowering communities and fighting deforestation
Yearly Update 2021
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Our vegetation survey measured data from 10 plots to assess the ecological impact of the project after 5 years. The survival rate for the trees planted in 2017 and 2018 ranges from 56% to 60%, which is not as high as our target, though we are satisfied it is as good as possible, considering the prolonged dry spells and restricted follow up. The wider ecological analysis, based on the data, is still underway.

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This report shares an update of our progress during 2021. Thank you for all your support!

Summary

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The project in numbers

- **56 ha** restored through ANR and enrichment planting
- **41 383** trees planted
- **3000** bee forage shrub species planted
- **3** government nurseries strengthened and provided with training for workers
- **40** young landless people organized into cooperatives and engaged in different forestry activities
- **145** households sustainably increased their income
- **583** households report sustainable use of exclosure resources
56 ha of forest land under restoration, with 66,239 planted or naturally regenerating trees

Land degradation is among the major challenges in agricultural production and sustainable development in many parts of Ethiopia. Rehabilitating degraded lands in arid and semi-arid environments usually involves fencing sites to protect them from the trampling and grazing of, they are often called “exclosures”.

In our Seret project, 56 ha of forest land – the Seret-Walta Exclosure – in Dogua Temben district has been protected to bring back the original native tree species while delivering important social and economic needs of the local community. The project is expected to positively impact a total 733 ha within the landscape.

The planting of 41,383 seedlings of mainly native species was carried out in 2017 and gap filling in 2018. Exotic species were included to provide a buffer between the exclosure and the nearby agricultural lands, and planting additional trees and shrubs that serve as a source of fodder for bees was important for the success of the beekeeping livelihood scheme. 3000 seedlings of two bee fodder shrubs (Leucas abyssinica and Becium grandiflorum) were planted in 2019 (1000 seedlings) and 2020 (2000 seedlings).

In addition to enrichment planting, there was direct seed sowing in the exclosure to improve the vegetation cover. More than 7kg of seeds of three tree species (Vachellia abyssinica, R. natalensis and Vachellia etbaica) were collected from the vicinity and sown in 36 ha of the exclosure in 2019.

Sowing seeds in the rest of the exclosure was planned for 2020, but due to poor seed production by mother trees and security problems owing to the war during 2021, it was not possible to carry this out.
However, during 2021 the forest guards continued their work weeding 5025 planted and naturally regenerated saplings and trees.

In 2021 vegetation and soil data was collected in the 10 permanent plots within the 56 ha exclosure, where baseline data had been collected in 2016/2017. This new data is still undergoing analysis, but has so far revealed that the survival rate for the trees planted in 2017 (*Olea europaea* and *Acacia polyacantha*) is about 56%, a little below the target of 60% after three years. However, considering the dryness of the area and the consecutive years with low rainfall (less than 500 mm), this result is considered good. The survival rate for the tree planted in 2018 is about 60%. Species-wise, *Acacia polyacantha* have a higher survival rate (67%) compared to *Olea europaea* (44%).

The soil samples taken from the plots reveal that carbon in the soil has increased by 50%, with an average carbon value of 67.64t per ha compared to 43t per ha in 2017.

The plots have also served as experimental plots for a moisture retention gel experiment, for which data from the last four years on the survival of seedlings with different levels of gel has been taken and is being analysed.
In an area where 86% of households directly depend on forest resources for subsistence, developing alternative, forest-friendly sources of income such as honey or egg production is an essential step toward reducing local human pressure on forest resources.

Two cooperatives, one in Seret and the other in Walta, have been trained in beekeeping and set up with beehives in the exclosure, as in Tigray, honey has high value. It requires little input, can be easily stored and sold at the local markets and, as such, it is an ideal annual income-generating activity for landless households. To date the income from beekeeping has not been as high as expected and the co-operatives are looking to develop other income generating opportunities.

In 2021, 80 households living around the exclosure received 10 pullets each to start small-scale poultry businesses. Of these, 58% were female-headed households, and participants were selected from both villages: 48 in Seret and 32 in Walta. The target for this year had been to provide 1200 chickens to 120 households, but because of the conflict it was difficult to obtain the required amount. As soon as the security

Alternative livelihood schemes are providing reliable income and decreasing the pressure on the exclosure

Securing the harvest for the farmers in Seret and Walta

With COVID-19 closing markets and limiting mobility, a locust outbreak, a dry spell, and internal conflict and unrest, 4.5 million people in 94 districts in Tigray in Northern Ethiopia are facing a severe crisis. We knew we had to find a solution for the 23,000 farmers we work with across 13 villages in Northern Ethiopia, including Seret and Walta, even though humanitarian aid is not our normal focus.

During 2021 we were able to raise $1.2 million to secure the wheat and barley harvest of all these farmers, who have and are still suffering with the conflict in Tigray.

Watch our video about this initiative here.
situation improves, the rest of the chickens will be purchased and distributed.

Harvesting grasses from the exclosure helps to maintain the area, and the grasses are used either as a source of feed for livestock or as shade for homes. In 2021 the project’s grass cooperatives harvested grass from the exclosure and sold it to other members of the community as livestock feed at the local market. WeForest’s neighbouring Desa’a project also bought some grass to use to shade the seedling beds in their nurseries. From the grass sales, the beekeeping cooperatives earned US$408 (20,000 ETB) which is the equivalent of eight times the annual income for the average household here. The income will be used for beekeeping supplies and equipment.

An endline survey was planned during 2021 to measure changes in the incomes of households, the baseline survey having been collected at the beginning of the project. Owing to the challenges posed by the war, this survey is now planned for 2022.

Community soil and water conservation activities

Soil and water conservation structures are a crucial step in forest restoration to avoid further soil erosion and facilitate rainwater infiltration to restore critical watersheds. These structures, which can be built by the communities, replenish groundwater, help infiltration and stop heavy topsoil from washing away.

More than 5000 microbasins for the most recently planted and naturally regenerating saplings and trees were constructed in 2021. These small pits keep rainfall around their roots, which supports their growth in this dry region.
How do we know our restored forests are growing and making an impact?

Every hectare under restoration is mapped with GPS points to generate polygons (areas on a map) that are assigned to sponsors. Permanent monitoring plots are established in our sites and our forestry and science teams conduct surveys to monitor progress of biomass growth, tree density, survival rate and species diversity, among other indicators. Where social impacts are also critical, we measure socio-economic indicators such as the number of beneficiaries, people trained, and income generated from forest-friendly livelihood activities.

Please visit our Why and How webpage for more information.

What’s Next?

- **April/May**: Managing naturally regenerated seedlings/trees through pruning and other appropriate silvicultural practices; seed collection for direct sowing
- **June**: Direct seed sowing
- **End June**: Technical training about managing naturally regenerated seedlings and direct seed sowing
- **End June**: Monitoring honey harvested by user groups
- **June/July**: Engage 100 community members in poultry production
- Following up with forest guards
- Strengthening and follow up of participants engaged in bekeeping
- Enhance fodder production by planting forage trees
- Maintaining terraces and other soil and water conservation structures. Damage to previously constructed soil and water conservation structures will be fixed.
- Analysis and reporting of biophysical information; socio-economic survey and reporting

Stay up-to-date with your interactive [Seret map](#), and check out the [photo album](#) of the project on Flickr.

Thank you for supporting the Seret project!