

ETHIOPIA

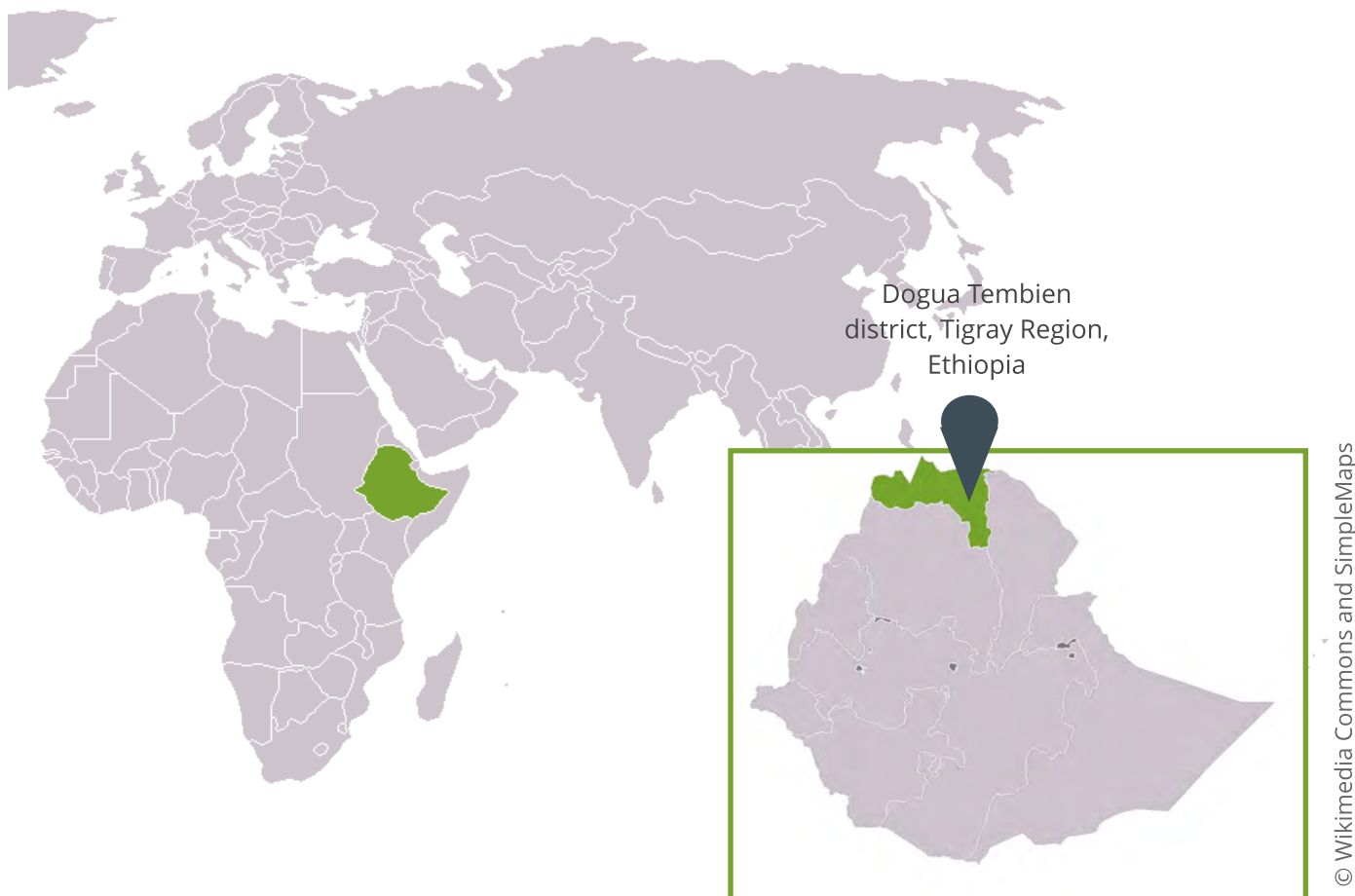
TIGRAY REGION

NOVEMBER 2017



THE PROJECT

Poor agricultural practices and grazing are responsible for severe deforestation in many parts of the world. In the highlands of Tigray in northern Ethiopia, WeForest has identified areas with extremely high levels of deforestation, soil erosion and biodiversity loss. These areas have been set aside as exclosures or “no-go” zones. They are now going to be protected and restored through Assisted Natural Regeneration and the planting of multi-purpose tree species for the benefits of surrounding villages, ecosystems and climate.





LANDSCAPE TRANSFORMATION

Trees financed¹: 39,130

Hectares directly restored: 56 ha

Methodologies used:

Assisted natural regeneration: ANR is a method that enhances the natural processes of forest restoration, encouraging the natural establishment and subsequent growth of indigenous forest trees, while preventing any factors that might harm them.

Framework planting: Framework planting is a technique that involves planting species in ways that promote the natural succession of the forest.



BIODIVERSITY CONSERVATION

13 tree species planted across intervention site, including important native trees (e.g. *Olea europaea*, *Cordia africana* and *Acacia abyssinica*), valuable fuelwood and timber species (e.g. *Acacia decurrens*, *Grevillia robusta*, and *Cupressus lusitanica*) and fodder shrub species (e.g. *Chamaecytisus palmensis*).

Vegetation survey took place in May 2017. In the site, the **Shannon biodiversity index of 1.78 was recorded**, which indicates a relatively high level of biodiversity.



CARBON SINK

In Tigray, the total above ground biomass is estimated to average 32.66 tons of CO₂ per hectare over a period of 20 years tree growth.

The trees planted to date will eventually after 20 years have stored **1,755 tons of CO₂** or an equivalent of **annual carbon footprint of 262 Europeans**.²



COMMUNITY ENGAGEMENT

729 direct project beneficiaries

43 employees hired from the local community for nursery management, site guarding, community mobilisation and overall planting activity facilitation

2 nurseries in operation and additional support from nearby government nurseries

2 cooperatives of landless farmers were formed

ACTIVITIES AND RESULTS

ENSURING TREE SURVIVAL DURING THE DRY SEASON

- **Applying precautionary measures**

It is a great challenge to restore Afromontane dryland forest. In the dry season, which lasts around 9 months, there is serious water scarcity which makes it very challenging for young seedlings to survive. To overcome this challenge WeForest and the local team take several pre-cautionary measures: we train community members in post-planting operations for watering and increasing survival, and we plant 10% more seedlings than financed trees to compensate for the eventually higher mortality rate.

- **Testing new technology**

We are testing the use of a hydrogel substrate for locking in soil moisture. This gel is a semi-synthetic biodegradable and highly absorbent polymer that absorbs water and expands up to 300 times its original size. The gel adheres to the roots of the plant and releases water, thereby nourishing the plant, when the temperature rises and the soil moisture falls.



Placing biodegradable hydrogels in the ground



Planting a tree sapling

LANDLESS YOUTH

- **Empowering landless youth to earn sustainable income**

Two landless youth groups were identified to participate in livelihood schemes such as honey production, woodlot management and animal fattening to empower them to earn a sustainable income. Over the coming months, WeForest, BOS+ and Mekelle University will support the group by providing seed money and training on business management. Our local partner BoARD will also support the landless groups in becoming a cooperative.

- **Supporting the community in implementing and strengthening local bylaws**

During this reporting period, the Seret-Guragursa watershed community (Walta and Seret) developed exclusive bylaws to regulate resources use and management, outlining individual and group use rights, sharing benefits and penalties in case of rules violated. The bylaws have been approved by the district BoARD and will be implemented over the coming months.

VISIT FROM THE BELGIAN DEVELOPMENT COOPERATION

In September 2017, the Seret enclosure was visited by Ms Delphine de la Vallée from the Belgian Directorate-general Development Cooperation and Humanitarian Aid. WeForest prepared written excursion guides and invited our partner institutions and stakeholders: Mekelle university, Douga Temben District Office of Agriculture and Rural Development and EthioTrees. The visit included a joint briefing meeting explaining future plans for the project, such as developing the landscape and improving the livelihoods of the rural community living near the enclosure site. Ms de la Vallée was pleased to visit the site and exchanged useful constructive feedback with the project managers.



WeForest partners and Ms de la Vallée visit our site

EXPANDING TO ENCLOSURE AREAS

Around 729 households, including 155 women, planted the first trees in the Seret enclosure from Walta and Seret village. The community was involved in the preparing the planting pits from June before carrying out the extensive planting activities in July. During these activities, the site coordinator monitored the works and gave directions on how to prepare the planting pits, the size of the pits, planting procedures and site cleaning after planting, such as avoiding the use of plastic bags.



Measuring sites in enclosure areas



Vegetation survey in enclosure areas

FOOTNOTES

- 1 Includes 32 380 trees financed in 2016 and 6 750 trees financed in 2017.
- 2 Assuming the average annual carbon footprint of one European is an equivalent of 10 tons of CO₂.

WeForest is an international non-profit that specializes in mobilizing companies to restore the World's forests and embark their stakeholders into a long-term journey towards environmental sustainability.

In order to achieve the objectives of the Paris Climate Agreement, we must peak our global emissions by 2020 and achieve carbon neutrality by the second half of this century. While reducing carbon emissions is critical, research suggests that even if carbon dioxide emissions came to a sudden halt, the carbon dioxide already in the Earth's atmosphere could continue to warm our planet for hundreds of years. The challenge is to reduce future carbon emissions and actively remove the excess carbon from our atmosphere.

Forests are known as the best technology for that: they are an amazing carbon sink.

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THANK YOU