

# ETHIOPIA

TIGRAY REGION

MAY 2018



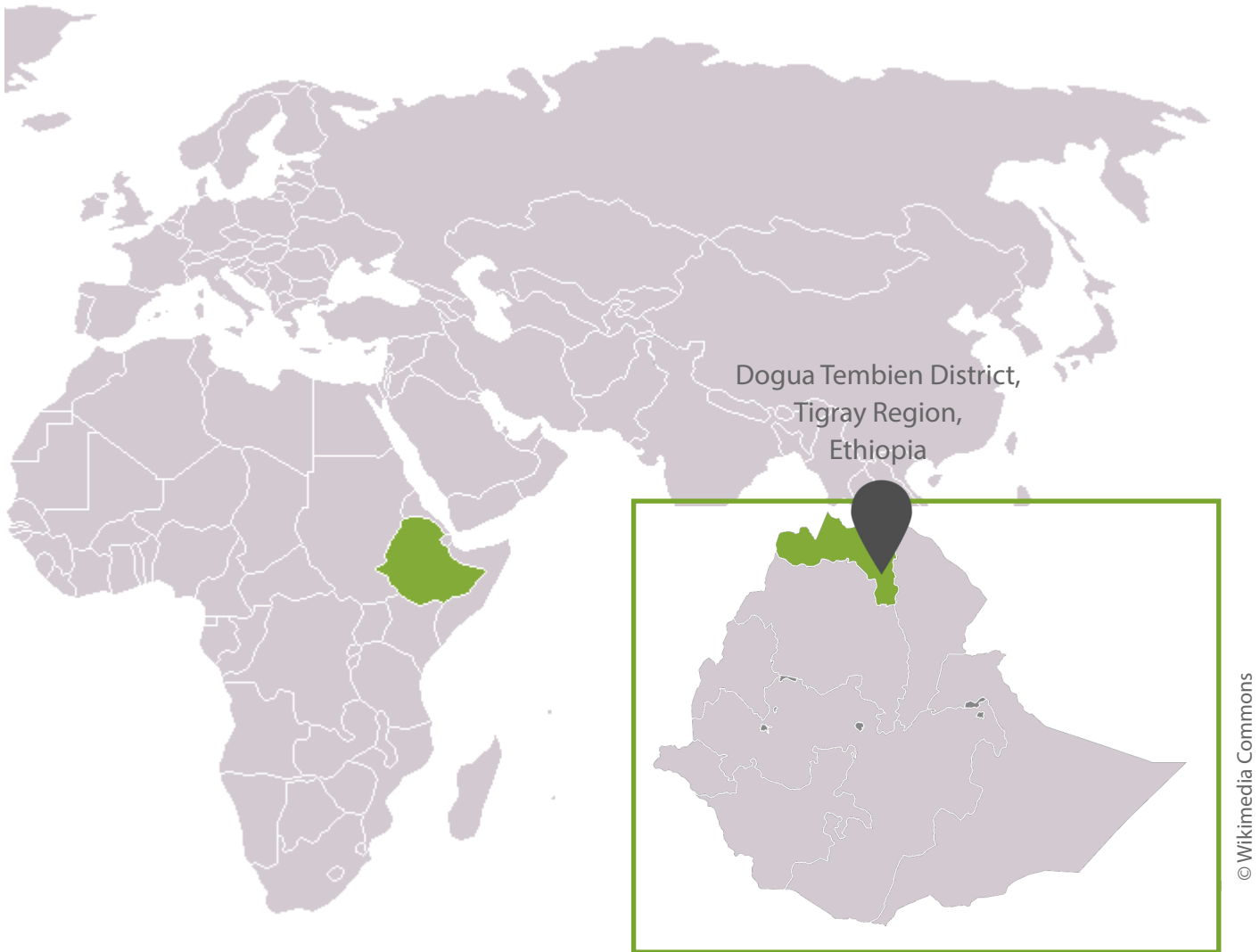
WeForest

*Making Earth Cooler*



## THE PROJECT

Extensive and poor agricultural practices, grazing, and illegal logging are responsible for severe deforestation in Ethiopia. The highlands in the North of the Tigray region have experienced a vicious cycle of deforestation and biodiversity loss, which left the area degraded and less productive. WeForest is restoring them by setting aside exclosures or “no-go” zones protected from agricultural practices and grazing. Through Assisted Natural Regeneration and tree planting, the step-by-step intervention increases vegetation cover. The area is regaining ecosystem services, benefiting in particular from improved water flow regulation that delivers clean water to downstream croplands and settlement areas.





## LANDSCAPE TRANSFORMATION

**Trees funded<sup>1</sup>:** 45 657

**Hectares directly restored:** 56 ha

**Total area positively impacted:** 733 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:** a technique that involves planting species in ways that promote the natural succession of the forest.



## BIODIVERSITY CONSERVATION

**Restoring the original tree biodiversity** with a total of 13 tree species planted across intervention site. These including important native trees (e.g. *Olea europaea*, *Cordia africana*, *Acacia abyssinica*, *Croton macrystacus*), valuable fuelwood and timber species (e.g., *Acacia decurrens*, *Grevillia robusta*, *Acacia etbica*, 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**. Additional 36 monitoring plots were established in April 2018, and updated vegetation survey is in progress.



## CARBON SINK

In Tigray, the forest is estimated to capture an average of 32.66 tons of CO<sub>2</sub> per hectare over a period of 20 years tree growth.

The trees planted to date will eventually after 20 years have stored **1,828 tons of CO<sub>2</sub>** or an equivalent of **annual carbon footprint of 180 Europeans**.<sup>2</sup>



## COMMUNITY ENGAGEMENT

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

**50 members** of the local community received training

**90 households** benefited from increased income

**3 nurseries in operation** - Maygoa, Melfa and Mayshehe - and additional support from nearby government nurseries

**2 cooperatives** of landless farmers were formed with 20 members each

## ACTIVITIES AND RESULTS

### FIRST DATA ON SEEDLING SURVIVAL RATE

Similarly to other project areas in Tigray, Seret Exclosure receives annual rainfall of less than 600 mm, concentrated in the three months from June to August. The remaining 9 months are mostly dry. During this long dry season farming is impossible and survival of planted seedlings is a challenge. In January 2018, our team assessed the survival of seedlings planted in July 2017: thanks to precautionary measures and extra care after planting, the seedling survival rate reached 70%. A particularly high survival rate was found among *Acacia* species (90%), *Ziziphus spina-christi* (92%) and *Chamaecytisus palmensis* (75%).



*Stone mulching improves soil moisture.*



*Women bring water to irrigate the seedlings.*

### DEVELOPING SUSTAINABLE BUSINESSES

During consultations with the local communities, beekeeping was identified as the most feasible business that can provide a sustainable source of livelihood. Two cooperatives were established and licenced, each with 20 members that are landless and currently do not have a job. 25% of the cooperative members are women. The members will start their businesses with the financial support of a co-funding scheme, where 75% of the support is provided by WeForest and our project partners and 25% is members' contribution.



*Beekeeping cooperative members discussing their business plans.*

## ASSESSING THE NEEDS OF THE COMMUNITY

To better understand what support and livelihood opportunities our forest restoration project can offer to the local communities, we carried out a detailed socio-economic study in the villages of Seret and Walta. The study included a household survey and a focus group discussion with participants from different interest groups (women, men, landless workers, farmers, community leaders, enclosure guards, youth and the elderly) and different parts of the watershed. The data collected will shed more light on enclosure management challenges, current income levels in the community, community attitudes towards ecosystem services and village development programs, and it will inform future project activities.



*Community members sharing their perceptions of forest vegetation improvement to day.*



*Community members and WeForest partners discuss enclosure management challenges.*



*Women from Walta draw a map of their village and discuss the project's impact.*



*Letekidane K., one of the project beneficiaries, presents the map to the rest of the focus group.*

## PROJECT CHRONOLOGY

- 2016 Feasibility assessment and start of the project with local project partners (Mekelle University, BoARD, Trees for Farmers)
- 2017 March: WeForest signed an agreement with the DGD, BOS+ and other local partners to transform the project into a public-private partnership  
 July: First planting in the Seret site  
 December: WeForest registered as a foreign non-profit organisation in Ethiopia to better assist with further project development in Tigray and other regions of Ethiopia
- 2018 March: Partnership agreement with Ethiotrees for a joint Plan Vivo certified project  
 Joint planning meeting on enclosure management with all project partners (BoARD, Trees for Farmers and Ethiotrees)  
 WeForest presided to the first BOS+ partner meeting held in April in Mekelle

### MEET WERESECH, TREE PLANTING WORKER

Weresech is 32 years old, has 7 children and is one of the women directly benefiting from our work in the Seret village in the Tigray region of Ethiopia. Weresech and her husband Gebreegziabhare own 0.5 ha of land, which is not sufficient to produce enough grain to feed their entire family throughout the year. To provide for their children and to be able to send their 3 eldest children to school, both of them must work outside of their farm.



Since 2017, Weresech has a regular job with WeForest, contributing to site preparation, planting, weeding and watering new seedlings. Between July 2017 and January 2018 she earned about 1200 ETB from the project, which is enough to pay for school and part of the family's health expenses. She proudly said: "I have directly planted and cared for over 250 new trees last year." She will be working on planting activities again during the upcoming season, between July and January.

Weresech is also going to join our new beekeeping program for farmers. She said: "I am lucky to have been chosen for this program and sell the honey our beehives produce at a good price through our cooperative."

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### FOOTNOTES

- 1 Includes 32 400 trees funded in 2016, 3 682 trees funded in 2017 and 9 575 trees funded in 2018 (ongoing).
- 2 Assuming the average annual carbon footprint of one European is an equivalent of 10 tons of CO<sub>2</sub>.



*Terraced fields in the mountains of Tigray. Restoring forests protects the water cycle and soil quality.*



*Farmer and his son herding their cattle. Keeping the cattle away from exclosures or “no-go” zones breaks the vicious cycle of forest degradation.*

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 need to start decreasing 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