

ETHIOPIA

AMHARA REGION

MAY 2018



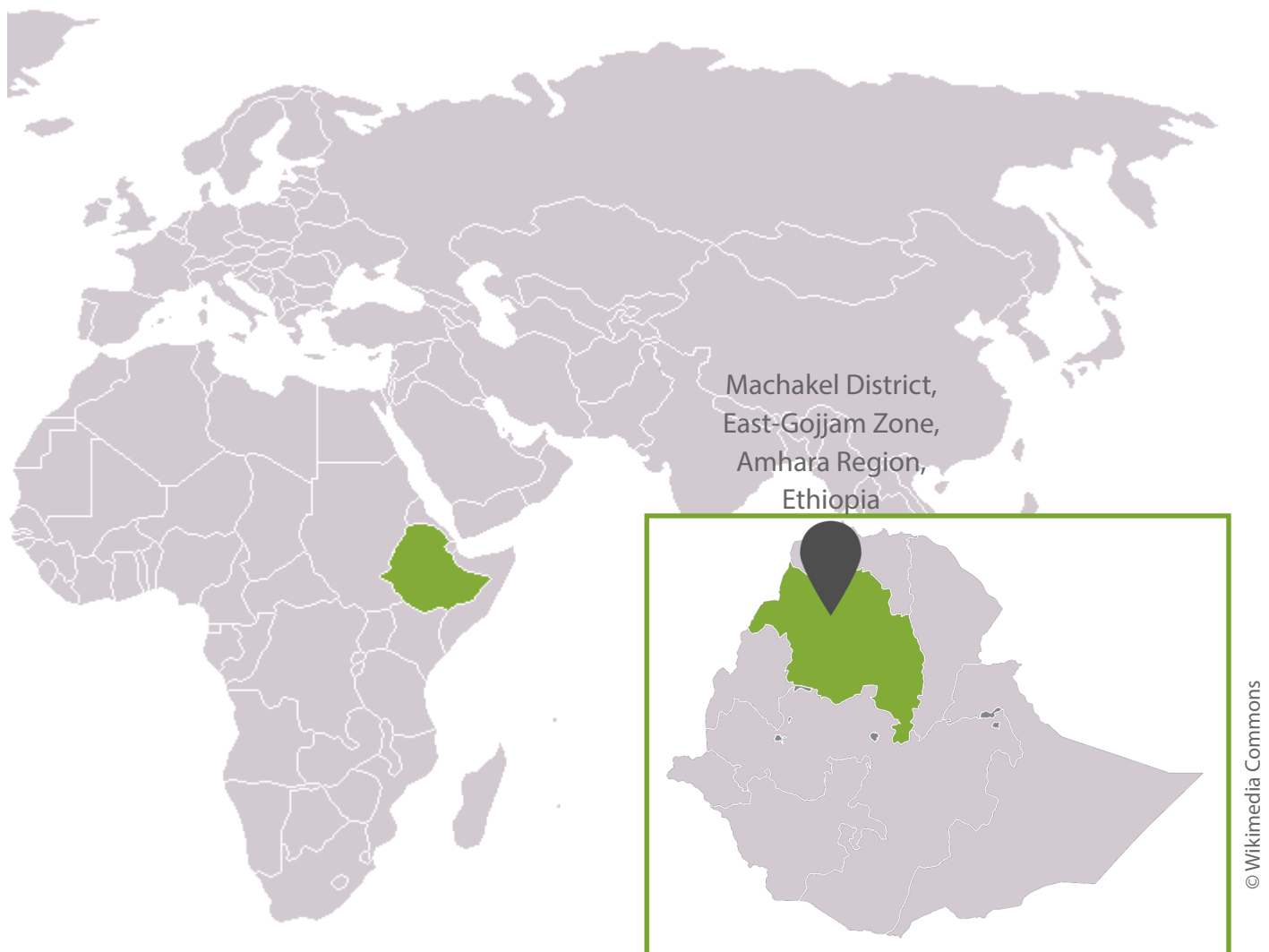
WeForest

Making Earth Cooler



THE PROJECT

Making communities stewards of their forests is the only way we know to protect and restore forests in the long term. The region of Amhara in Ethiopia is under severe threat from land degradation and soil erosion as a result of widespread deforestation: it is now highly fragmented with extensive gullies that also directly threaten agricultural land and settlements as fertile soil is being washed away. Forests are seen as a resource for timber and fuel wood. Biodiversity is disappearing and exotic trees dominate the landscape. With local partners like The Hunger Project who specialize in community engagement, WeForest is restoring in the Machakel district through a bottom-up approach: the rural communities are trained with the skills they need to restore and protect their forests in the long term.



SCIENCE-BASED MEASUREMENTS AND VERIFICATION

Forestry survey: once a year monitoring of survival rates, biomass growth, species diversity and composition on monitoring plots, annual monitoring of all home-based nurseries.

Socio-economic survey: once a year grading progress measurements, once every 3 years outcome assessment and once every 5 years impact evaluation.

Financial audit: once a year, conducted by a third party.



LANDSCAPE TRANSFORMATION

Trees financed¹: 1 215 055

Hectares directly restored: 606 ha

Total area positively impacted: 8 580 ha

Methodologies used:

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

Agroforestry: the integration of trees on farms and in the agricultural landscape in ways that to sustain productive, profitable, and healthy land use systems.

Farmers' Managed Natural Regeneration: managing naturally grown trees in farmland and communal land using indigenous techniques.

Check dam installation: protecting soil from erosion.



BIODIVERSITY CONSERVATION

10 native and 5 exotic tree species planted in our intervention area. Native: *Olea europaea*, *Albizia gummifera*, *Militia ferruginea*, *Acacia abyssinica*, *Faidherbia albida*, *Rahamnes prinoids*, *Cordia africana*, *Coffee arabica*, *Croton macrostachyus*, *Moringa stenopetala*. Exotic: *Gravilia robusta*, *Chamaecytisus proliferus*, *Cuprusses lustranica*, *Percia americana*, *Acacia decurrens*.

Conservation of endangered tree species, such as *Millettia ferruginea* that is endemic to Ethiopia.



COMMUNITY ENGAGEMENT

8 villages engaged including 4 new since last year: Laydamot, Embuliit Tahases Dar, Amari Yewubish, Debre Kelemu, Amanueal Zuria, Abeb Zuria, Shafo Gelat, Kubel Abo.

35 permanent employees and **91 part-time employees** from the local community. They work on nursery management, seedling production, planting, post-planting management, community mobilization.

3 644 community members trained in planting and post planting care and **94 local forest restoration experts trained** in agroforestry, soil and water conservation and nursery management.

1 375 households benefiting from an increased income.

3 community tree nurseries in Embule Teras Dara and Amari Yewubish villages.

ACTIVITIES AND RESULTS

PLANTING SITES SELECTED FOR RESTORATION

After assessing 23 communal lands in 8 villages, 15 sites were selected for the 2018 planting season (for example Embulit Thasa Dara, see photo). Several criteria were taken into consideration: current vegetation cover, site proximity to farm lands and settlements, rockiness, distance to nearby natural forest, land use rights, community approval and local bylaws regarding forest landscape restoration. To maximise the potential impact, preference was given to adjacent sites that will seamlessly transform into one big forest (see map).

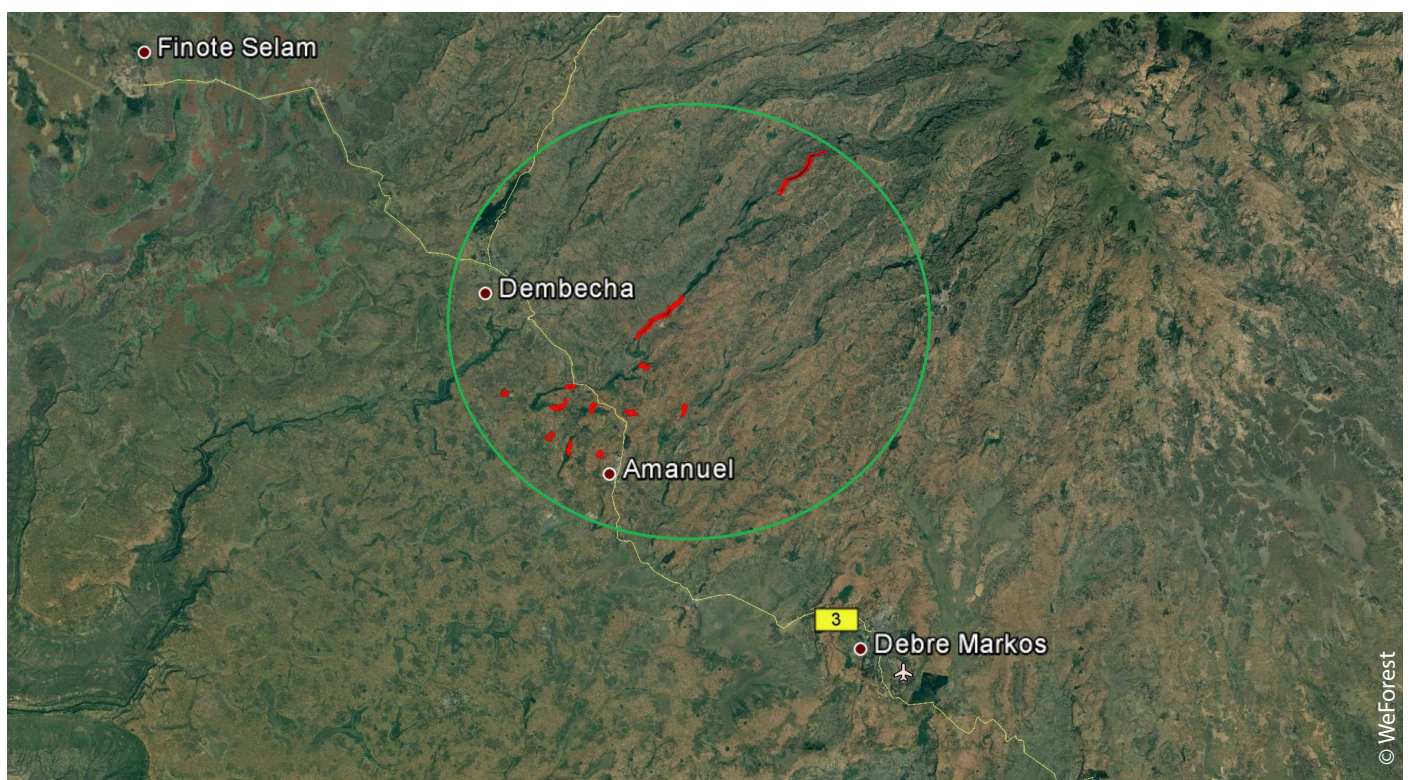
The three community nurseries produced a total of 647 235 tree seedlings for the upcoming planting season. The main focus are indigenous tree species but selected exotic tree species matching community



Embulit Thasas Dara site selected for planting.



Preparing seedlings in the "Love Nature" nursery.



Map of sites selected for the 2018 planting season.

USING TECHNOLOGY TO CONSERVE WATER AND SOIL

Most of the sites in our intervention area are degraded by erosion. To limit the damage and stop the soil loss, WeForest in collaboration with the local community and the Amhara Bureau of Agriculture installed check dams that slow down water flow in Laydamont, Amare Yewubish and Debre Kelemu villages. In addition, different water harvesting structures in the dry areas and cut of drains for high rainfall highland areas were installed. For large gullies, side walls were reshaped to minimise further erosion.



Building check dams to stop soil erosion.



Treating gullies with shrubs and grass.

TRAINING FARMERS IN AGROFORESTRY

Agroforestry is a system combining tree, livestock, crop and insects in a spatial way to boost agricultural productivity and maintain ecosystem wellbeing. In populated areas like Machakel district with limited land holding size, agroforestry practices are the best option to harness food production and satisfy household tree products need. For year 2018, the project selected 263 interested model households to practice agroforestry in 6 villages. In this program different cash crops (e.g. coffee and rhamnus) and fruit trees (avocado and apple) will be planted in farmers' backyards as homegarden and fenced farmlands (see short story on page 6).



Orientation given to farmers on site preparation and planting.



Improved avocado variety distributed to farmers.

PROJECT CHRONOLOGY

- 2016 WeForest and The Hunger Project started a joint project combining strengths of grass-root community mobilisation (THP) and forestry (WeForest)
First nurseries set up for planting
- 2017 WeForest field assessment and feasibility assessment
Remediation plan for planting season 2017/2018 to address shortcomings in tree density
- 2018 February - April: baseline vegetation information collected for 2018 planting sites

MEET ALEMAYEHU, FARMER WHO PARTICIPATED IN OUR TRAINING



Alemayehu is a 40 year-old farmer who lives in the Lay Damot Kebele village together with his wife and four children. He was selected for our train-the-trainer program to learn about integrated land and forest rehabilitation. He is now able to train the other farmers in agro-forestry.

Coffee trees require the protection of shade trees: in 2017, Alemayehu planted 200 coffee arabica trees together with 150 *Cordia africana* and *Albizia gummifera* trees in order to boost coffee tree growth. He also planted *Rhamnus prinoides*, one of the most valuable crops to Ethiopian rural farmers to earn income and for domestic use. The extract from its stems is used as medicine and in the brewing of tella, an Ethiopian beer. Its leaves are pounded into flour and sold.

Alemayehu proudly said: "My coffee and rhamnus trees provide me with an additional income to cover my family's health expenses and education costs."



Staff in the Machakel “Epicenter”, a community-led training center supported by WeForest.



Farmer in Amhara planting trees on his land.

FOOTNOTES

- 1 Includes 382 222 trees financed in 2015, 375 623 trees financed in 2016, 436 552 trees financed in 2017 and 20 658 trees financed in 2018 (ongoing).

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