ETHIOPIA TIGRAY

COMBATTING DESERTIFICATION IN NORTHERN ETHIOPIA



May 2017 Report









HECTARES FINANCED

TREES FINANCED

TONS CO 2 SEQUESTERED 1

BENEFICIARIES

45

32,380

1,470

573

A total of 32,380 trees have been financed thanks to the support of donors and sponsors

THE PROJECT

In the highlands of northern Ethiopia, where the landscape is dry and highly vulnerable to land degradation and climate change, WeForest is restoring areas of non-productive land identified as exclosures ("no-go" zones) in partnership with Trees for Farmers. These areas are protected from agricultural practices and grazing and are restored through the planting of native tree species. Here, increasing forest cover is key to restoring ecosystem services, delivering water to downstream croplands that can stimulate livelihood improvement and creating a microclimate. It also contributes to Africa's Great Green Wall initiative. The project encompasses a livelihood development component to engage the surrounding communities in sustainable income activities. Surrounding villages are empowered to engage in community-based nurseries and forestry activities. The project will benefit the deteriorated landscape and ecosystem and build the resilience of the local communities.



KEY DETAILS:

Location: Debubawi Misrak and Misrakawi zone, Tigray region

GPS: 13°35'29.06"N/39° 8'18.78"E

Restoration approach: Framework planting² and assisted natural regeneration

Partners: Trees for Farmers, Mekele University, Bureau of Agriculture and Rural Development

¹The total above-ground biomass is estimated to average 32.66 tons of CO₂ per hectare over a period of 20 years . Mekuria, W., et al. 2010. Economic Valuation of Land Restoration of exclosures established on communal grazing lands in Tigray, Ethiopia

²Framework planting is a technique that involves planting species in ways that promote the natural succession of the forest

PLANTING UPDATE

KEY PLANTING FACTS

- 45 ha under restoration
- 41,000 seedlings growing in the nurseries
- 12 species
- Main tree species identified: Olea europea, Juniperus procera, Acacia abyssinica, Cordia africana, Sesbania seseban, Gravellia robusta, and Ziziphus spina-christi

During this reporting period, restoration of the Seret site began. Villagers from participating communities constructed in situ water harvesting mechanisms and structures to reduce run-off coming from uphill. Ten random fixed monitoring plots were established at the Seret site to collect data on the current and future ecological health of the area. The plots will be regularly analyzed throughout the project to monitor progress. Preliminary vegetation and soil data were collected to analyze biodiversity, soil carbon content and other indicators of soil health. All the sampling point GPS coordinates and plot layout angles were recorded to ease future monitoring.



Figure 1. Map to show the location of the Seret site

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- Two project nurseries and additional support from government nurseries
- 41,000 seedlings raised in project nurseries
- Construction of water harvesting mechanism and reduce run-off structures
- 10 fixed monitoring plots established

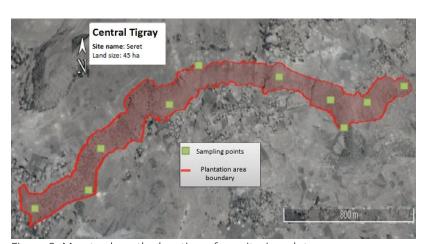


Figure 2. Map to show the location of monitoring plots



Figure 3. Constructing soil and water conservation structures

NURSERY ACTIVITIES

The project has two nurseries now in operation, Mygoa (Figure 4) and May'sehe, and receives additional support from nearby government nurseries. Around 41,000 seedlings are being raised in the nurseries by community members (Figure 5) to prepare for the planting season around June and July this year. *Olea europea cuspidata* (Figure 6) and *Gravilia robusta* (Figure 7) are two species currently growing at the nurseries. The latter is a fast growing species and is one of the species most preferred by community for its timber value. Other important fuelwood and timber species (e.g. Acacia *decurense*) and fodder shrub species (e.g. *Chamaecytisus palmensis*) are growing at the nurseries.



Figure 4. Mygoa nursery seedling preparation



Figure 5. Villagers from Seret planting seeds



Figure 6. Seedlings of Olea europea



Figure 7. Seedlings of Grevilia robusta

SOCIO-ECONOMIC UPDATE

KEY SOCIO-ECONOMIC FACTS:

- A total of 573 community members will be engaged in project activities
- 43 community member employees

The rural community of Seret is enthusiastic to see their watershed rehabilitated so that it can provide important ecosystem services like clean water, soil stability, animal feed and a habitat for honey bees. There is a high level of engagement among community members in the project. Around 553 households participated in the construction and renewal of the water conservation and reduced soil run-off structures (Figure 8). This labor was freely provided as contributions from the communities. Among the participants, 209 were women and 146 were landless youth. 43 paid community members are engaged in different project activities such as nursery management (Figure 9), seed collection (39 people), site guarding (4 people) and community mobilization and overall planting activity facilitation (1 person). This provides additional off-farm income for local families. In the coming months, villagers will carry out the planting, restoration activities and aftercare.

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- 553 households participated in construction activities in Seret site
- Landless youth and women group identified for engagement in income schemes
- Seret exclosure use and management by-law drafted



Figure 8. Local women participating in construction and planting site preparation



Figure 9. Local people earn a living running the project nurseries

Following meetings held in October and May, two landless youth group were identified to form a legalized cooperative and engage in three livelihood schemes; honey production, woodlot management and animal fattening. WeForest, Mekelle University and the District Agricultural Office will support the group with financing and business training. The exclosure by-laws that govern the use and management of the site have been developed in partnership with the Seret community, village administration authorities and agricultural development agents. The by-laws include individual and group use right, resource sharing benefits and penalties in case of rule violation. The draft by-law is currently under review by the District Office and will be in place once legally approved.

