TANZANIA

TRANSITIONING KINESI VILLAGE FARMERS TO PERMACULTURE FARMING

November 2016 Report

TREES FINANCED

465,565

BENEFICIARIES

2599

A total of 465,565 trees have been financed thanks to the support of donors and sponsors

THE PROJECT

In collaboration with Global Resource Alliance since 2011, WeForest continues to reforest degraded lands in the Rorya District of Tanzania, near the village of Kinesi. The area is being cleared of its forests primarily to produce charcoal for cooking, but grazing by goats and cows are also threatening the forests. Through the project, communities are planting trees at school grounds, homesteads, plantations and in agroforestry systems. While cooling our earth, these trees provide local people with diversified incomes, increased food security and access to medicinal resources and timber. The trees are grown at the Nyamunga nursery, run by families of vulnerable orphans and transplanted by local people. The project also provides training in sustainable agricultural practices, including permaculture, and educational support.

KEY DETAILS:

Location: Kinesi Village, Rorya District, Mara Region

GPS: S126.276, E33 51.496

Restoration approach: Planting and agroforestry

Partners: Global Resource Alliance

PLANTING UPDATE

KEY PLANTING FACTS

- 465,565 trees have been financed
- 65 species planted
- Main species planted: *Jatropha curcas*, *Terminalia mantalis*, *Citrus* sp., *Acacia nilotica*

During this reporting period, 46,403 trees from 33 species were transplanted by beneficiaries. A further 56,918 remain in the nursery ready to be planted in the coming months. The main tree species planted, in descending order, were *Jatropha curcas*, *Terminalia mantalis*, *Citrus* sp. and *Acacia nilotica*. The project is evolving well and continues to be a valuable resource for villages and schools at Rorya and Tarime Districts and there is the infrastructure to distribute at least 100,000 trees in the Rorya and Tarime districts. Trees are usually planted at 2 to 3 meters intervals when planted at schools and other institutions. When planted at individual plots, the density varies greatly. Random audits carried out on a monthly basis demonstrated a survival rate of 76.2%. A total of 54 recipients were audited (108,122 trees). The slight decline in survival rate is likely due to the long dry season that impacted the area. The team has been continuing to educate old and new customers on how to take care of trees and training those with low seedling survival to set up their own nurseries to replace any trees.

MAY - OCTOBER 2016:

- 46,403 trees transplanted
- 33 species planted
- A further 56,918 seedlings in nursery
- 54 audits performed
- Survival rate of 76.2%

Figure 1. Young seedlings begin to grow at the nursery

Figure 2. Nursery workers tending to the seedlings

SOCIO-ECONOMIC UPDATE

KEY SOCIO-ECONOMIC FACTS:

- 2599 beneficiaries
- 131 schools
- 19 employees

Beneficiaries include individuals, families and schools. During this reporting period, 157 beneficiaries planted trees. the number of beneficiaries increased to 2590 (132 more than in the last report), of which 131 are schools. Given the number of families and schools involved in the project, the number of people benefiting from the project is much higher. Interviews with beneficiaries continue to reveal the value of the project to beneficiaries. They demonstrate that beneficiaries benefit from access to food, income, medicine, timber and fencing. Farmers that are planting in agroforestry systems will benefit from the shade and nitrogen fixing properties the trees provide their crops and receive training in permaculture to further empower them to work with, rather than against, nature. A total of 19 people are employed in the project, with a preference for engaging guardians of orphans in nursery activities.

MAY - OCTOBER 2016:

- 157 households planted trees
- 132 new beneficiaries engaged
- 12 new schools engaged in project

Figure 3. Children bring water for their trees at Muhundwe primary school

Figure 4. Outside of the classroom, the grounds of Kyaro primary school are scattered with trees

The Rafiki (“friends of the Trees”) Club is in place to encourage recipients to ensure a survival rate of 80% or higher. It's at this point they can become members. As members they are entitled to seedlings and training free of charge from the nursery. Of those that have been audited this reporting period, 59.3% have Rafiki status, a minor decrease since the last report (61.1%). The aim is to continue to educate and train beneficiaries so that they can grow trees on their own and subsequently increase the number of Rafiki members. During this reporting period, 11 non-Rafiki customers have created their own nurseries, replanted dead trees and regained their Rafiki status after receiving training.

TYPES OF TREES PLANTED

Jatropha curcas L.

This is a drought-resistant tree originating from Central America. The non-edible vegetable oils from jatropha seeds (ranges 27 - 40% oil) can be used as a a bio-diesel substitute for fossil fuels and therefore can reduce greenhouse gas emissions. Beyond fuelling, *J. curcas* provides organic fertilizer and animal feed. Studies suggest that jatropha could improve rural livelihoods through energy self-reliance as well[1]. It can be cultivated in a family labor setting as a monoculture or inter-cropped with annual or seasonal crops in agroforestry systems and the oil can be easily extracted with low-technology.

Moringa (*Moringa oleifera*)

These trees grow rapidly and have are highly valuable since it can be cultivated for their leaves, pods, and their kernels for oil extraction and water purification. The leaves are also highly nutritious, have medicinal value and are used to make green tea. Local people like the Moringa tree especially for its medicinal value. The small leaves are packed with an incredible amount of nutrition; they are high in protein, calcium, beta carotene, vitamin C, potassium etc.

Citrus (*Citrus spp*.)

These trees provide fruit for a healthy, varied diet and the fruit can be sold at local markets for extra income.

Figure 5. *Jatropha curcas* L.

Figure 6. Moringa pods

Figure 7. Citrus fruits

Most families are using the fruits for their households (as well as schools for students and teachers). Increasingly, forest products are being sold in the local markets. Currently, the majority of the products being sold at the markets are excess fruits. There are a variety of markets in the area, Musoma, Tarime, Kiabakari, Bunda and Mwanza, where the project beneficiaries are selling their products.

[1]Muys et al. 2013; Aklilu et al. 2016

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