

Project: 1Million Agro forestry Trees with Nigerian Farming Communities



Local implementer: Tropical Research and Conservation Centre, (TRCC,), Nigeria

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Introduction: This project entails planting of 1million agro forestry trees with farmers/communities in Nigeria within the next 3-5 year,regenerating about 10,000ha.The project will train and provide agro forestry tree seedlings to about 1000 Nigerian farmers who are willing to adopt agro forestry.Suitable cash crops and fruit trees (e.g cashew,cocoa,African mango,African pear,Avocado etc) will be intercropped with arable crops (e.g. cassava, plantain, maize, vegetable,or pineapple etc)..The project will help create jobs, increase food security, and improve livelihoods, especially for smallholders farming/farming communities.The unit cost for planting,maintening an agroforestry tree (including training and monitoring) is 0.5USD

Justification: Agriculture is a major sector of the Nigerian economy, with over 40.2 million households involved in farming, primarily smallholders.Nigeria has a total agricultural area of 70.8 million hectares of which 34 million hectares are arable land.

Over the years most lands have become degraded ,resulting in increasing soil erosion,poor soil quality,poor yield and increasing biodiversity loss.Agroforestry,a sustainable agricultural system that integrates trees, crops, (and livestock) on the same land, is a promising solution for producing food, fuel, and fiber while improving soil health, conserving biodiversity, and mitigating climate change.

Agro forestry is a crucial step towards achieving a greener food system that is resilient, inclusive, and sustainable. It contributes to multiple SDGs, such as zero hunger, climate action, and life on land.

Techniques: The project will engage different agro forestry techniques, such as Alley cropping, multi-storey and Hedgerows.

Alley cropping is an agroforestry practice where rows of trees or shrubs are planted with wide spacing, leaving alleys in between for arable crops. This system provides both short-term income from annual crops and long-term benefits from the trees, such as timber, nuts, fruit, soil fertility, and protection against erosion.

A hedgerow is a line of closely spaced shrubs and trees that form a living fence to enclose, separate, or mark boundaries. These features are important habitats for a wide variety of wildlife, including birds, mammals, and insects, and serve several purposes such as providing shelter, food, and corridors for wildlife.

A multi-storey agroforestry system is a farming method that integrates different types of plants in layers based on their height to maximize the use of vertical space and land resources. This system typically includes trees, shrubs, and ground-level crops, creating multiple layers or canopies that allow for more efficient utilization of sunlight, water, and nutrients.

Aim: Focusing on regenerating 10,000 hectares of land with about 1 million trees planted, increasing income for over 1000 farmers/households and benefiting nearly 50,000 individuals indirectly. This initiative is crucial for helping small-scale farmers adapt to climate change and protect the environment.

The key objectives:

Environmental Restoration: To reforest and restore degraded parts of the Project Land, enhance biodiversity, improve soil health, and contribute to climate change mitigation through carbon sequestration.

Sustainable Economic Development: To create a viable and long-term source of income for the Farmers/Landowners.

Community Development: To create skilled and unskilled employment opportunities, facilitate knowledge transfer in modern agroforestry techniques, and support community development.

Activities:

- a) Registration/signing in of farmers/land holders.
- b) Baseline data collection.
- c) Provide training (capacity building) for local farmers in modern agroforestry practices.
- d) Providing high-quality trees crop seeds/seedlings.
- e) Providing technical support in farm establishment,
- f) Continuous monitoring and reporting.

Envisaged Benefits:

Agro forestry has potential to offer multiple benefits, such as:

1. **Increasing resilience:** Agroforestry diversifies the production system and reduces the risks of crop failure, pest outbreaks, and market fluctuations. For example, a farmer who plants fruit trees alongside maize can have a more stable income stream throughout the year, as the fruit trees provide a seasonal source of revenue while the maize is harvested.
2. **Restoring degraded lands:** Agroforestry can rehabilitate degraded lands by improving soil fertility, water retention, and erosion control. For example, a community that plants a mixture of trees and shrubs on a degraded hillside can prevent soil erosion, recharge groundwater, and provide fodder for livestock.
3. **Enhancing biodiversity:** Agroforestry can enhance biodiversity by creating habitats for wildlife, insects, and microorganisms. For example, a farmer who plants hedgerows of native trees and shrubs can attract pollinators, birds, and beneficial insects that improve crop yields and pest control.
4. **Mitigating climate change:** Agroforestry can mitigate climate change by sequestering carbon in trees, soil, and biomass. For example, a plantation that grows fast-growing trees for timber and fuelwood can also store carbon in its roots and leaves, reducing the amount of greenhouse gases in the atmosphere.

About the local implementer: Tropical Research and Conservation Centre, TRCC, (founded in 2001) is a non-governmental organization (NGO) focusing on environment, natural resources, indigenous resources preservation, sustainable agriculture, and community healthy living. TRCC is dedicated to restoring degraded ecosystems, conserving biodiversity, and improving livelihoods in Nigeria's Niger Delta through sustainable practices.

TRCC Vision: A society with sound health, and in harmony with the nature.

TRCC Mission: To restore, protect and preserve nature through education, reforestation and conservation practices.

TRCC Achievements:

TRCC has over 20 years of experience leading community-driven conservation initiatives, focusing on mangrove restoration and forest management.

- Over 3 million mangrove trees planted, with over 500 ha restored to sequester carbon, enhance coastal protection, and mitigate flooding.

Over 50,000 economic trees planted with farmers.

●Education and Empowerment: Education and training sessions for local communities (reaching over 50,000 people)on the value of forest and benefits of conservation services, equipping them with skills (organic farming ,agro forestry,sustainable forest use).

Biodiversity Conservation: Restoration and protection of critical habitats for some endangered fauna like Sclater's guenon monkey,Red capped Red capped mangabey monkey;sea turtles,Africa manatees and threatened bird species.

Some of our TRCC's work are published in the following partners' sites:

<https://we4all.com/tree-planting-in-nigeria/>

<https://www.myelen.com/en/content/9-nigeria-mangroves-project->

<https://forstfreunde.de/products/mangrovenbaeume-nigeria-pflanzen>

<https://www.reforestationworld.org/projects/tropical-research-and-conservation-centre-trcc/#:~:text=Description,or%20the%20West%20Africa%20manatee.>

<https://explorer.land/x/project/mangroves/posts>

<https://scistarter.org/niger-delta-mangrove-citizen-science-project>

<https://cleancooking.org/sector-directory/tropical-research-and-conservation-centre/>

<https://www.vantienhovenfoundation.com/projects/primate-inventory-and-conservation-in-ikpa-river-basin-southern-nigeria/>

<https://www.pozible.com/project/184517?srsId=AfmBOopKtgsx2H1nQudSJhQWBvrz36tykoXM6W637hNjVbfeKQds077K>

<https://omogolowildlife.org/Sea-turtles-Nigeria>

<https://alongsidewildlifefoundation.org/grants/funded-projects/>

https://globallandcare.org/wp-content/uploads/2020/12/August2015ALCI_newsletter.pdf

<https://naccnigeria.org/author/nigeriacleancooking/page/9>

<http://www.newforestsproject.org/pdfs/Projects%20Update%20-%202008.pdf>