

# Community Reforestation in Nicaragua



Justina Gutierrez Munos, farmer in Mansico, Nicaragua, has planted 5000 trees in 2019.

**The CommuniTree Programme is a community-led reforestation initiative that helps to restore ecosystems, improve livelihoods, and combat climate change. Having become a Plan Vivo certified project in 2010, it works with smallholder farmers in Nicaragua to grow trees alongside their existing farming practices. It has grown to become the largest reforestation initiative in the country, and is now restoring over 11,000 hectares of land in partnership with more than 3,000 smallholder families.**

Through CommuniTree, smallholder farmers grow native species on degraded, underused areas of their land. Farmers must reserve sufficient land for their current subsistence farming practices, ensuring their forests provide additional livelihood benefits that can be passed on to future generations of their family. There is critical need for this in Nicaragua, which has suffered from significant deforestation in recent decades, largely from agriculturally based land-use change. At the same time, Nicaragua is the second-poorest country in the Western Hemisphere, with many of its population struggling to maintain secure livelihoods.

**The trees improve the temperature of the farm and the planet as well. They also give us wood, shade, and better soil, helping stop erosion.**

**Justina Gutierrez Munos, farmer in Mansico, Nicaragua.**

Land use planning around watersheds is a key supporting activity; the project started in a critical watershed that feeds into one of Nicaragua's most important estuaries, the Estero Real, which suffers from seasonal water shortages and flooding. This estuary is home to one of the biggest extensions of mangroves and migratory birds in the region and has been recognized by the Ramsar Convention on Wetlands of International Importance. Increasing forest cover helps to regulate the hydrological

## Project type:

Land Use and Forestry

## Project location:

San Juan de Limay and Somoto, Nicaragua

## Project status:

In operation, credits available

## Annual CO<sub>2</sub> reduction:

1,040,796 t (in 2022)

## Situation without project

Forest degradation, deforestation

## Project standard



## Partner



## Awards



## Impressions

cycle, retaining water through the dry season and minimizing flooding in the rainy season. This provides important water and biodiversity benefits on a local, national and international level.

**We hope to create solidarity among communities, provide opportunities for families to earn extra income, act as a role model for others and build environmental awareness among subsistence farmers.**

**Elsa Gonzales, Head Community Technician and Office manager Taking Roots Nicaragua**

The project engages farmers over a 10-year period to help them grow trees in a way that is beneficial to them in both the short and long term. In the short term, they benefit through payments for ecosystem services (PES), and in the long term, through new sustainable sources of income, such as from the sale of sustainably grown timber. This addresses the drivers of forest degradation, positioning reforestation as an attractive land-use option for smallholder farmers. As a result, the project reduces forest degradation by easing pressure on surrounding natural forests, while simultaneously sequestering quantifiable volumes of CO<sub>2</sub> from the atmosphere and improving environmental and socio-economic conditions across participating communities.

The project contains 3 types of plantations: Mixed species plantations (multi-purposed tree plantations composed of fast-growing firewood species and longer-lived hardwood species), coffee agroforestry (shade-grown coffee and fruit trees) and silvopastoral planting (tree planting on areas use for cattle-breeding).

### **Project partner, implementation, verification auditing**

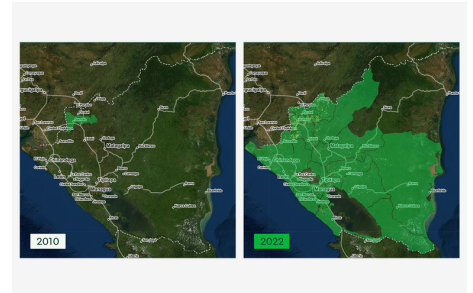
For many years, myclimate has been working very closely with the project developer Taking Root in Canada and the local project implementation partner - the NGO APRODEIN - on this programme. The programme was sourced by myclimate directly on site in 2012 and subjected to an internal due diligence. myclimate had decided at that time to pay upfront payments, thus taking the financial risk.

The programme is registered with Plan Vivo, the most rigorous standard in LUF. Its Technical Advisory Team (TAC) reviews the PDD, validation report and annual reports. In concrete terms, it looks like this: APRODEIN's field technicians visit farmers with parcels enrolled in the programme in years 1, 3, 5, and 10 to monitor and ensure that the trees are healthy and growing. At those times, technicians also provide support to farmers to troubleshoot any challenges that they might be having. Taking Root's platform quantifies and surfaces this forest and carbon reporting by combining the ground data taken by the field technicians with advanced geospatial and machine learning analytics. These numbers are reported in Taking Root's annual reports, which are verified annually by Plan Vivo.

CommuniTree is independently verified by Plan Vivo annually and audited by an independent third party every five years. The last audit took place in 2016 by Rainforest Alliance, and Taking Root won an EcoIndex award for



Sergio Gonzalez Sandoval happy with his forest he has been growing since 2012 thanks to the project.



Afforestation areas: 2010 vs. 2022. The program has grown to become the largest reforestation initiative in Nicaragua.



One of the projects nurseries for growing thousands of seedlings.



Loading the cart with seedlings: Each rainy season, entire villages come together to plant hundreds of thousands of trees.

its monitoring and reporting. The next audit is currently taking place; it was delayed due to the Covid 19 pandemic, but is planned to be completed in autumn 2023. Plan Vivo Certificates are subsequently issued and sold to donors and partners via myclimate. More informations see "Documentations".

### **Controlling: How does myclimate guarantee that CO2 is stored?**

Due to the inaccuracy of remote sensing in the early stages of forest growth, the program carries out statistically representative field measurements on randomly distributed sample plots, which account for about ten percent of the area of each plot.

In this project, as in all other afforestation projects that myclimate supports, the cooperation with smallholder families on many hundreds of different plots ensures that the risk of losing a lot of biomass due to a fire, for example, is massively reduced compared to a contiguous area.

Last but not least, a project always includes a buffer pool of 15 per cent that absorbs failures, which of course cannot be 100 per cent avoided. This, together with the conservative calculation, ensures that forest projects bring about sustainable climate protection in addition to the positive side effects mentioned above (sources of income, biodiversity).

## **This project contributes to 10 SDGs (as of end 2022):**

Find out how myclimate reports these SDGs in our FAQ.

The following SDGs are verified by Plan Vivo:



Payments being made to communities across 3,326 farming families where people are living on less than \$2/day.



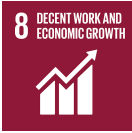
Conducted over 10,000 capacity building workshops annually providing education & training to smallholder farmers.



Working with over 200 women farmers who traditionally face barriers to financing and resources.



Natural wood fallen from forest provide renewable source of energy for cooking.



Additional income is created through selling firewood and high value woodcrafts from the smallholder forests.



5,297 seasonal jobs per year, of which 86% are landless and 9% are female.



Additional revenues created from farmers' forest products incentivize reforestation practices, ensuring ecosystems are maintained for the long term.



3,334,778 t CO<sub>2</sub> being stored.



6 million native trees planted annually, reforesting over 4,739 ha of land, habitat and local wildlife regeneration.

These SDGs have been approved by myclimate:



Regeneration of critical watershed helping protect over 100,000 people from drought and flash-flooding.