



TAKING ROOT

CELEBRATING  
**10** YEARS

of reforestation  
with impact



PLAN VIVO  
For nature, climate and communities

2019-2020 Annual Report  
*CommuniTree Carbon Program*

# Message from the Executive Director

We are delighted that with the release of this annual report, Taking Root is celebrating 10 years of reforesting with impact. Ten years ago, when Taking Root's Communitree program was registered as a Plan Vivo project, we were working with just a handful farmers, testing out the idea of using the carbon markets to reforest land with smallholder farmers. Now the Communitree program is engaging thousands of farming families and has become the single largest reforestation initiative in Nicaragua, with Taking Root's model being applied in 9 countries on all 3 tropical continents across the globe. Reflecting back on the early years, we could not be more pleased with the impact we have been able to achieve by partnering with smallholder farmers to grow trees.

These last ten years have led us to 2020, Taking Root's most impactful year yet. Several landmark milestones were achieved, including planting our 10 millionth tree and issuing our one millionth carbon credit with Plan Vivo. As has been at the heart of Taking Root from the beginning, the power of partnership and collaboration in tackling the climate crisis was reflected in the continued rapid growth of Taking Root. The whole organization demonstrated its collective determination, surpassing initial planting targets and reforesting double the area compared to the previous year.

Despite the challenges brought on by COVID-19, companies and governments continued to prioritize natural climate solutions, exemplified through large-scale collaborative initiatives such as the launch of the UN Decade on Ecosystem Restoration, the World Economic Forum's 1 trillion trees challenge (1t.org) and the Green Gigaton Challenge. In addition to these

collaborative initiatives, the private sector also revealed new large-scale carbon commitments, further highlighting how much value natural climate solutions will have to realize their targets. At an operational level, COVID-19 highlighted the flexibility of Taking Root's local team in Nicaragua, who used their position as an outreach organization to provide public health support to the rural and remote communities that we work with.

Throughout Taking Root's 10 years, innovation has been at the heart of our work, and this year was no exception. FARM-TRACE is close to being launched as an Approved Approach with Plan Vivo, which would allow any smallholder project to automate their forest and carbon reporting. This will make it easier for organizations working with smallholder farmers to access financing for forest carbon and is a significant step in creating new ways to scale natural climate solutions within smallholder supply chains all over the

world. We have also continued to develop new and innovative practices on the ground, such as the use of biochar to enhance Taking Root's reforestation activities and improve farmer outcomes. It is extremely rewarding for everyone to see years of research and development begin to fulfil technologies' promise of enhancing impact.

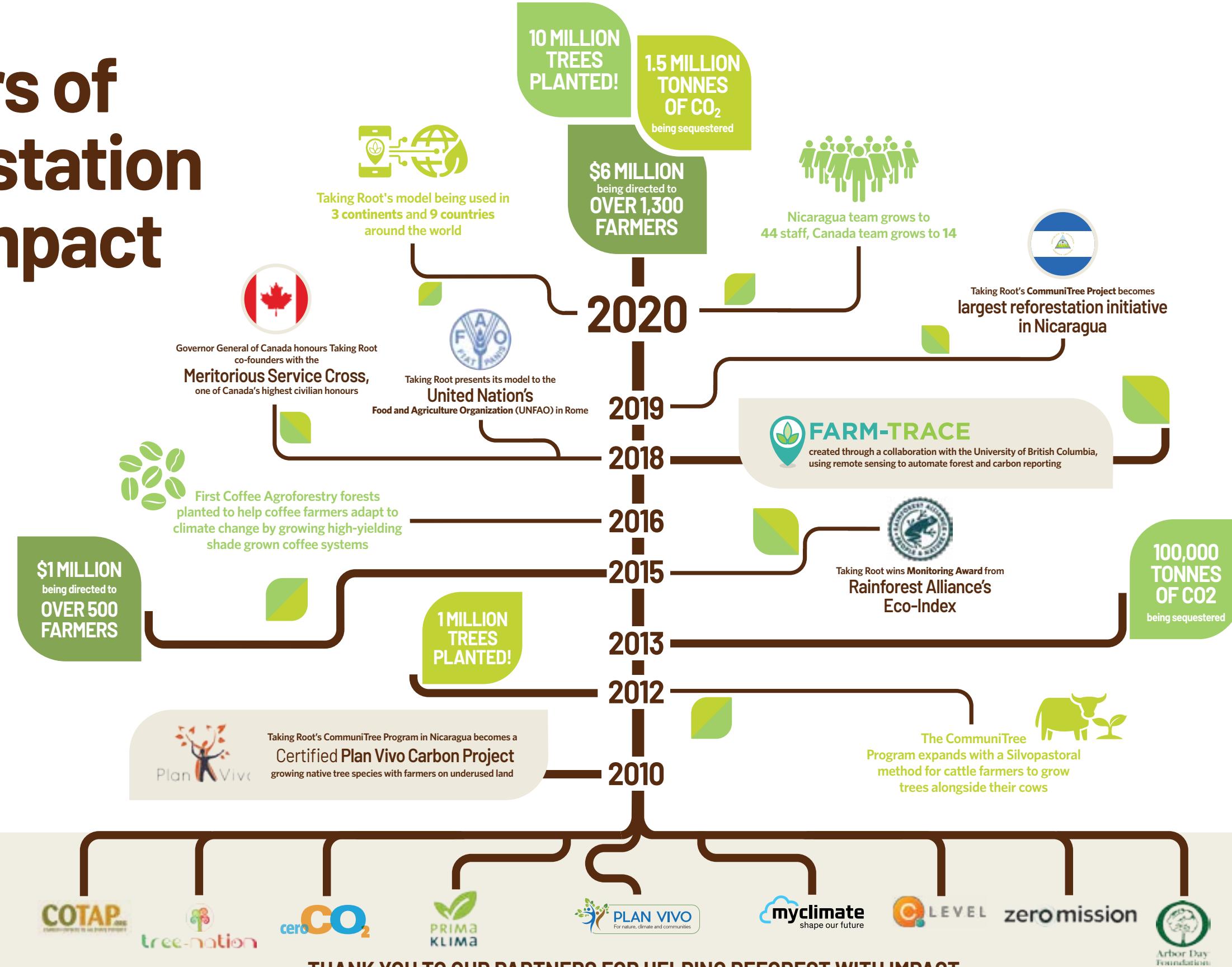
As Taking Root embarks on its next 10 years, we are more ambitious than ever to use reforestation as a means to meet the challenge of the climate crisis while supporting smallholder farmers.

We are forever grateful for our many friends and partners that continue to believe in us and make all our work possible.

Sincerely,  
**Kahlil Baker, PhD**  
**Executive Director at Taking Root**



# 10 years of reforestation with impact



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# 2020 Impacts at a Glance



**9**  
**countries**

where Taking Root's  
approach is being  
applied

**\$0.78m**  
paid to  
farmers



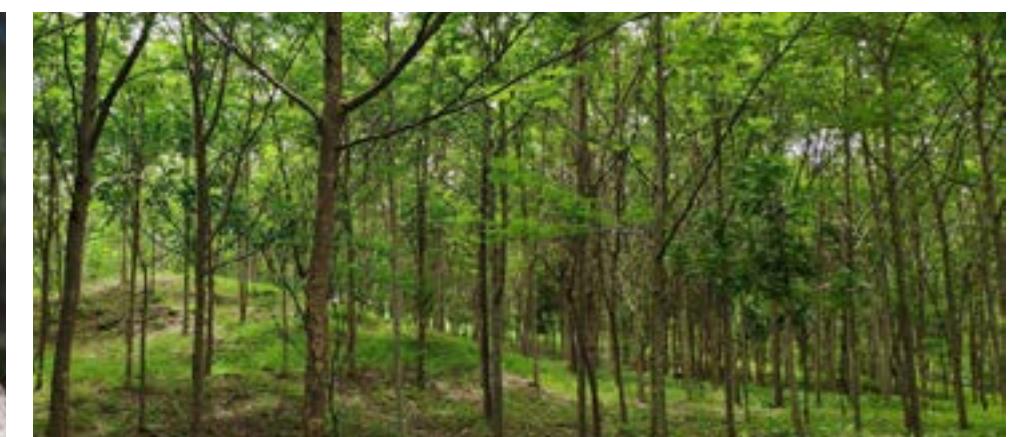
**18,889**  
**farmer**  
**workshops**  
delivered COVID-safe

**410** farmers  
added in  
2020



**3,048,694**  
trees planted

**1,357**  
**farmers**  
now enrolled in the  
Taking Root program



**2,107** hectares reforested

2

# Project Updates



Jose Salomon Gonzalez on his farm in Cantil de las Canas, San Juan de Rio Coco.

# Taking Root continues to grow impact

**TAKING ROOT** created more impact than ever in 2020 despite the added challenges brought about by COVID-19. As businesses and governments increasingly turned to natural climate solutions for effective climate action, Taking Root was able to exponentially amplify its impact through its best-practice approach to reforestation with smallholder farmers.

Taking Root's CommuniTree project in Nicaragua continued to grow, while helping other forest and carbon initiatives around the world adopt its model. The growth and scale of the impact achieved in 2020 is a testament to Taking Root's Nicaraguan and Canadian teams' dedication, commitment and ambition.

As Taking Root's teams focus on scaling their impacts even further for next year, on the following pages showcase some of the ways Taking Root has grown and delivered impact in 2020.

**"I have now planted 15,000 trees on my farm and they give me many benefits as well as creating work for the community."**

- NORVIN GRADIZ, 2020 FARMER, COMMUNITREE PROGRAM



Farmer Norvin Gradiz on his farm in San Jose, Somoto



## CommuniTree Project doubles in size

In 2020, Taking Root's CommuniTree project met unprecedented planting targets, doubling the annual growth of the project in terms of land reforested for the second year in a row.

Collaborations with Taking Root's longstanding partners drove the growth of the project, delivering climate impacts for some of the world's leading businesses

committed to tackling climate change. For example, working closely with the Arbor Day Foundation, [CommuniTree was included in Microsoft's portfolio](#) of carbon removal projects to meet their ambitious goal of becoming carbon negative by 2030. New collaborations like this have resulted in Taking Root reforesting over 2,000 hectares in 2020, double the area of 2019.

Last year also marked two other important milestones for Taking Root. As of 2020, Taking Root has planted over 10,000,000 trees, and issued over 1,500,000 Plan Vivo Certificates. Given that 2020 witnessed significant local and global challenges, these milestones are outstanding accomplishments for Taking Root's Nicaragua team and the farmers that they work with.

## Taking Root's model applied in 9 countries in all 3 tropical continents

**Beyond project growth in Nicaragua, Taking Root's position as a global leader in smallholder reforestation continues to be demonstrated with its approach being applied across the globe.**

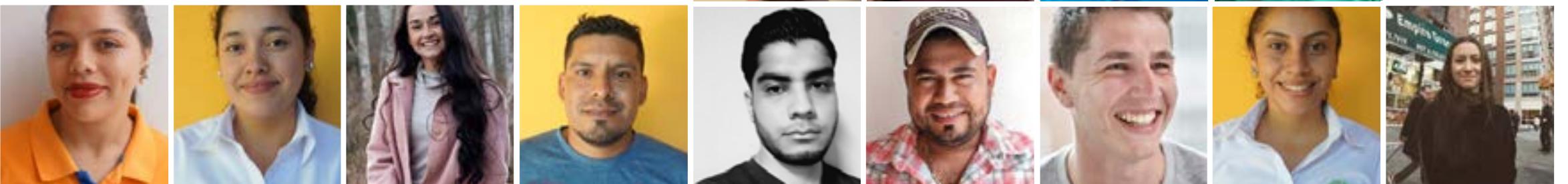
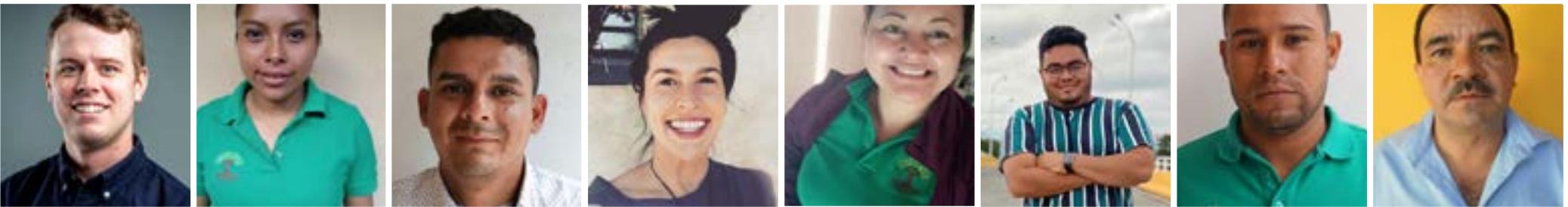
Building incentives for reforestation with smallholder farmers has

always been integral to the Taking Root model, recognised across the industry for its focus on using technology to deliver high quality impacts and improve farmer livelihoods. Through Taking Root's platform, FARM-TRACE, this model is now being applied in 9 countries around the world.

FARM-TRACE is being used to automate forest and carbon reporting across carbon, coffee, cacao, cattle and spices supply chains, providing specific and transparent insights for organizations to verify and claim their impacts. While still in its early stages, it is clear that FARM-TRACE

and has the potential to be used as a tool around the world to unlock huge impact by catalyzing investments into natural climate solutions with smallholder farmers.





## *Canadian and Nicaraguan teams growing rapidly*

The organization's size and capacity have significantly increased in both Canada and Nicaragua as Taking Root continues to scale its impact.

The Canadian team grew from 4 staff members at the end of 2019, to 14 at the end of 2020. The increased capacity has allowed Taking Root to invest further in developing its technological solutions as well as help other organizations around the world to enhance and scale their forest and carbon impacts.

Similarly, the Nicaragua Operations team grew from 34 to 44 in order to increase operational capacity for recruitment, monitoring, and development of farmers' forest enterprises.

**"Taking Root is excited to see so many new faces join the team and relishes the opportunity to continue exploring ways to broaden and deepen its impact."**

- PAULA ACHILLES,  
FINANCE & HR DIRECTOR, TAKING ROOT

# Innovations for better reforestation

**IN 2020**, Taking Root continued to be at the forefront of innovations to improve and scale forest and carbon initiatives with farming communities across the tropics. By embracing and harnessing emerging technologies, Taking Root is developing solutions that overcome some of the traditional challenges faced by funders wanting to invest in natural climate solutions and farmers wanting to implement them.

Two innovations in 2020 stand out for driving greater impact and value for farmers. The first is the launch of the next phase of CommuniTree's sustainable biochar project to improve forest and soil health, increase farmers' incomes,

and store additional carbon in the soil. The second is through FARM-TRACE, an increasingly recognised approach in the carbon industry for the automation of forest and carbon reporting, thereby making it easier for smallholders to access carbon finance. These innovations are not only driving greater reforestation impacts and in Nicaragua but around the world.



**"At Plan Vivo we are very excited by the innovative and inclusive approach Taking Root is pioneering, to drive reforestation at scale, while keeping the engagement, participation and benefit of smallholder farming communities at the very heart of the process."**

- KEITH BOHANNON, CHIEF OPERATING OFFICER, PLAN VIVO FOUNDATION



## *Biochar trials launched to drive reforestation*

2020 saw the results of 3 years of R&D, with the CommuniTree project starting to produce and apply sustainable biochar to enhance reforestation practices with farmers in Nicaragua.

In partnership with German-based climate protection and tree-planting NGO, PRIMAKLIMA, trials were launched to explore optimal biochar allocations with newly planted trees to minimize tree mortality in nurseries and maximize coffee crop yields.

The project is driving reforestation by providing added value to farmers from the trees they are growing. Taking Root purchases waste and pruned wood from farmers' forest management activities, providing

them with an additional source of income. That wood is processed in our sustainable biochar reactor, co-developed with Thermotech Combustion, and transformed into biochar using a circular energy process that minimizes pollution. After being transformed, biochar becomes extremely carbon-stable, with twice the carbon density as wood, and when buried in the ground, permanently stores carbon out of the atmosphere. With such a wide range of benefits, Taking Root looks forward to continuing its use of biochar to enhance reforestation practices across the CommuniTree project.

[Read this article](#) to learn more about how Taking Root is using biochar with smallholder farmers.

## *FARM-TRACE: Automating forest and carbon reporting with Plan Vivo*

FARM-TRACE made strides in 2020 in demonstrating impact through the automation of forest and carbon reporting for smallholder supply chains.

Taking Root's technology is helping smallholder reforestation efforts around the world by overcoming the traditional challenges that prevent smallholders from accessing carbon finance, in particular the cost and effort of monitoring and reporting on forest and carbon.

To help provide FARM-TRACE as an effective solution to others, it was put forward to become an Approved Approach with Plan Vivo. Becoming an Approved Approach will allow any smallholder project using FARM-TRACE to automate the carbon reporting they submit for the generation of carbon credits through Plan Vivo's carbon certification standard. As part of the public consultation for this process, [Taking Root & FARM-TRACE hosted their first ever webinar with Plan Vivo](#), with over 160 professionals across the carbon, environmental, and commodity sectors tuning in. Now in the final stages, FARM-TRACE is set to complete the process to become an Approved Approach in the spring of 2021 to help smallholder projects around the world access financing through the generation of Plan Vivo certified carbon credits.



# Overcoming 2020's Challenges

**THE WORLD** faced unprecedented challenges due to COVID-19 in 2020. The farmers and communities that Taking Root works with are often more vulnerable than most, and this was highlighted not only with COVID-19, but also the extreme weather events that affected millions of livelihoods in Nicaragua and across Latin America. Because of this, it was even more important to find ways to support farmers throughout the year. Taking Root resolved to not only meet planting targets, but to be a source of support to local communities throughout the year.

**“Despite 2020’s challenges, Taking Root delivered a recordbreaking planting year while supporting the staff, farmers, and communities that we work with.”**

- ELVIN CASTELLON, NICARAGUA COO, TAKING ROOT



Farmer Amparo del Socorro Espinoza (RIGHT) with her father Helmin José Reyes (LEFT) in Morcillo, San Juan de Limay.

# Supporting farmers in the face of COVID-19

**The local Taking Root team in Nicaragua reacted with remarkable speed to change its day to day operations and offer farmers continued support through the pandemic.**

The COVID-19 pandemic presented a particular challenge for the thousands of smallholder farmers that Taking Root works with, as they

often live in rural, remote areas and are disconnected from public health information and services. Given their low incomes, physically intensive work, close home life settings and the fact that many are over the age of 50, they are extremely vulnerable to the potential impacts of a virus like COVID-19.

As one of the largest outreach organizations in the regions of

Nicaragua where it works, Taking Root began to use its daily activities to communicate and educate the rural communities we work with on COVID-19 and how they can stay safe and healthy. This included the distribution of materials promoting best-practice public health guidance. In addition, Taking Root team rapidly implemented a number of policies to keep staff and

communities safe, including remote working and communications along with social distanced practices when visiting and working with farmers. In addition, Taking Root team rapidly implemented a number of policies to keep staff and



## IN MEMORIAM: **Alina Bustillo**

*In January 2021 Taking Root technician, Alina Bustillo, passed away in a tragic motorcycle accident after work.*

*Since joining in March 2019, she dedicated herself to growing trees for a better future for the planet and farmers in Nicaragua.*

*Alina, your passion, dedication and smile will be sorely missed by all of us here at Taking Root. We stand with your family and friends offering our love and support to them.*

*Alina said:*

*“lo que más amo sembrar vida – What I love most is to sow life”.*

*We hope to honour you by fulfilling your love and continuing to spread life and hope throughout Nicaragua.*



## Hurricane Eta & Iota: A reminder of what is at stake

**While the CommuniTree project was largely unaffected, the devastating impacts felt by the two extreme hurricanes which hit Nicaragua in 2020 reminds us all why we cannot act fast enough.**

In November, devastating impacts swept Central America as not one, but two extreme hurricanes hit the East Coast of Nicaragua. Hurricane Eta, a category 4 hurricane, and Hurricane Iota, a category 5 hurricane, came ashore

within weeks of one another. Both hurricanes brought immensely strong winds and heavy rains to the east coast of the continent, devastating local communities.

Located on the other side of the country, in the West of Nicaragua, Taking Root and the communities we work with escaped the worst of the hurricanes. Though residual heavy rains caused some project monitoring delays, operations otherwise continued as normal.

Extreme weather events such as these are a stark reminder that we are seeing the disastrous consequences of climate change play out before our eyes, and that often vulnerable rural communities are affected most. Reforestation practices that help mitigate the effects of climate change help farmers adapt to its conditions are essential to cultivate, and Taking Root is determined to build resilience for smallholders across the country.

# Looking forward to 2021

**BUILDING ON** the successes of 2020, Taking Root is looking to 2021 to continue growing and scaling its impact to effectively tackle climate change. In particular, this will involve continuing to increase the impacts and effectiveness of the CommuniTree program as well as helping others adopt Taking Root's model and solutions to drive investment into the creation of verified climate impacts.

The page that follows describes the three main areas in which the organization will be focused on delivering in 2021.

**"Taking Root is more ambitious than ever to create meaningful impact for forests and farmers around the world."**

– JEAN-BENOÎT GRÉGOIRE ROUSSEAU,  
PRESIDENT OF BOARD OF DIRECTORS, TAKING ROOT



Juan José Pérez Benavides on his farm in Las Canarias, San Juan de Limay.

## Scoping ex-post Plan Vivo credits

In 2021 it is anticipated that Plan Vivo will be releasing an ICROA compliant standard for the conversion of ex-anti carbon credits into ex-post carbon credits.

Based on the details of the standard, Taking Root will evaluate the possibility and opportunity regarding the production of ex-post carbon credits from the CommuniTree Program for future years.

## CommuniTree Project update and verification

As a verified Plan Vivo project, every five years the Nicaragua CommuniTree program updates its official project design documentation and is verified by an external auditor.

This ensures operational and technical changes to the project

are reflected and approved by Plan Vivo as well as verifying the impacts Taking Root is delivering through its reforestation activities. The exact manner and timing of external verification will be dictated by COVID-19 restrictions and decided in partnership with Plan Vivo.



## Scaling reforestation globally

In 2020, Taking Root formed a number of partnerships around the world to integrate its model and drive investment into verified climate impacts with smallholder farmers.

2021 will see Taking Root continue this work, particularly through the continued development and implementation of its FARM-TRACE platform with funders and farming organizations. In particular, the focus is to continue the rapid

development of FARM-TRACE in becoming an industry recognised approach for measuring and reporting on climate impacts. This will involve completing the process of becoming an approved approach with the Plan Vivo Standard,

building in new methodologies for reporting climate impacts such as tree planting to enhance applicability of the platform, and creating new strategic partnerships across the commodity markets for carbon, coffee and cacao.

3

# CommuniTree Activities & 2020 Program Size



Farmer Martin de Jesús González with Taking Root technician Oved Ramírez in Los Cedros, Somoto.

## Current land-use activities

In 2020, Taking Root implemented its Mixed Species, Silvopastoral Planting and Coffee Agroforestry technical specifications, while maintaining boundary planting used as a technical specification in previous years.

All technical specifications can be downloaded via the Plan Vivo website: <http://www.planvivo.org/communitree>



## Silvopastoral Planting

The Silvopastoral Planting technical specification acknowledges the need for cattle pastures by integrating trees and improved pasture with livestock. The trees improve pasture productivity, provide shade, and produce timber and forage for the farmers and their cattle. The short-rotation nitrogen-fixing species are harvested at a young age,

providing building posts while fertilizing the soil. Silvopastoral Planting sequesters carbon dioxide, provides ecosystem services in the short term, and sustainably produced, highly prized timber in the long term. Additionally, the system helps improve the pasture below the trees and adds biomass to the soil. This technical specification was added in 2012.



## Coffee Agroforestry

The Coffee Agroforestry technical specification is the newest of Taking Root's reforestation technologies. It is designed to help smallholders adapt to climate change by establishing new high-yielding rust-resistant coffee agroforestry systems at higher elevations in order to improve smallholders' income while mitigating climate change. Financial incentives, in the form of payments for ecosystem services, incentivize the establishment of new coffee agroforestry systems at incrementally higher elevations where temperatures are cooler and therefore less susceptible to rust attacks.

Furthermore, we are introducing new high-quality, rust-resistant coffee varieties and providing technical training in the region. This technical specification was added in 2016.



## Mixed Species Forest Plantation

This technical specification involves planting and intensively managing multi-purpose mixed species forest plantations on participating smallholders' land. All of the species selected are native to the region and are chosen in consultation with local smallholder groups and professional foresters. This technical specification was added in 2014.

## Changes to project documentation since last annual report

No technical specifications have been added or modified since the previous Annual Report. Taking Root continues to focus on its existing afforestation types: silvopastoral planting, mixed species forest plantation, and coffee agroforestry.

## 2020 participation and program size

Table 1: Summary of new participation and program size to date (2020 vintages).

Participants		
Total smallholders with registered PES agreements		502 smallholders
Total area reforested (ha)		2,522.94
Technical specifications used		
Technical specifications used	Area covered in hectares	Equivalent hectares
Silvopastoral Planting	1,122.12	726.75
Mixed Species Forest Plantation	1,287.37	1,302.14
Coffee Agroforestry	113.45	77.81
<b>TOTAL</b>	<b>2,522.94</b>	<b>2,106.70</b>

See Appendix 2 for equivalent hectares calculations.



# 4

## Submission for Plan Vivo Certificate Issuance



Farmer Mario Caliz on his farm in El Guaylo, San Juan de Limay.



## Recruitment of new smallholders

Community technicians successfully recruited new participants from 42 new communities to meet current demand for Plan Vivo Certificates, bringing the project to a total of 292 participating communities as follows.

*A table detailing the communities is available in Appendix 5.*

## Land changes

In 2020, 0 net ha eq. were lost from previous vintages. 89 ha were lost from the area of land put under management in 2020. This is land which was originally recruited for 2020 but dropped out before or during planting and therefore never officially entered the program through an annual report.

## Program sales and allocations

The following table summarizes the sale of CO<sub>2</sub> for the 2020 Vintage.

*The Plan Vivo Secretariat receives a full overview of pricing but this has been removed from the public version of the report as pricing information is sensitive.*

**Table 2: Program CO<sub>2</sub> sales and allocations for the 2020 vintage**

Total volume of CO <sub>2</sub> forward sold	489,826 tCO <sub>2</sub>
Total sales for 2020 vintage	
Average certificate price	
% of sale price to community fund	60%
Price to community fund per offset	
Increase to community fund from this year's vintage	
Number of smallholders allocated to buyers	502
Total area represented by certificates requested	2,106.7 ha eq.
Technical specifications applied	Mixed Species Forest Plantation Silvopastoral Planting Coffee Agroforestry

# Carbon sales

The following table summarizes the distribution of Plan Vivo Certificates sold in this vintage on December 31st 2019.

***The Plan Vivo Secretariat receives a full overview of pricing but this has been removed from the public version of the report as pricing information is sensitive.***

***For a detailed list of carbon sales to date, see Appendix 4.***

**Table 3: Summary of carbon sales for vintage 2020**

Vintage	Name of Purchaser	Certificates purchased	Price/certificate (USD)	Total received (USD)
2020	Amavida	173		
2020	Arbor Day Foundation	80,000		
2020	BBTV	258		
2020	C-Level	18,047		
2020	COTAP	2,395		
2020	Dawson College	5,374		
2020	Dunsky	42		
2020	ECODES	3,000		
2020	FairShares	800		
2020	MyClimate	100,000		
2020	Oneka	620		
2020	Prima Klima	127,413		
2020	Reforestation World	4		
2020	Spring Activator	24		
2020	Taking Root	489		
2020	Tense Watch	50		
2020	Tree Nation	11,137		
2020	Zero Mission	140,000		
2020	Unsold at time of report	134,390		
<b>TOTAL</b>		<b>624,216</b>		

# 5

# Monitoring Results

## Summary of 2020 results for new 2020 *plan vivos*

Table 4 below is a summary of monitoring results for new *plan vivos* added in 2020.

*Complete details of the monitoring can be found in Appendix 5, which can be requested as a separate PDF document.*

**Table 4: Summary of 2020 monitoring results for 2020 *plan vivos***

Vintage	2020
Area of land meeting monitoring targets (ha eq.)	1,790.68
Area monitored (ha eq.)	2,089.18
Percentage of monitored land meeting monitoring targets	86%

## Summary of 2020 results for previous *plan vivos*

Table 5 below provides a summary of the 2020 monitoring results for farms planted between 2010-2019.

*Complete details of the monitoring can be found in Appendix 5, which can be requested as a separate PDF document.*

**Table 5: Summary of 2019 monitoring results for continuing 2010-2019 *plan vivos***

Vintage	2010-2019
Area of land meeting monitoring targets (ha eq.)	1,155.98
Area monitored (ha eq.)	1,086.36
Percentage of monitored land meeting monitoring targets	94%

# Project impacts

## Socio-economic and environmental impacts

The following table displays some of the key socio-economic and environmental impacts of the CommuniTree project during this year. The data is collected from Taking Root's Farm-Trace software.

**Table 6: Socio-economic and environmental impacts in 2020**

<b>Social impact: Program Participants</b>	
Participating new communities	42
Participating new smallholder families	410
<b>Total participating smallholder families</b>	<b>1,357</b>
<b>Social impact: Employment Created</b>	
Number landless farmers employed	2,295
Number of landowners employed	612
<b>Total seasonal employment</b>	<b>2,907</b>
Permanent positions	59
<b>Total employment created</b>	<b>2,966</b>
<b>Social impact: Capacity development</b>	
Community workshops and farmer trainings	18,889
<b>Total session attendance</b>	<b>19,100</b>
<b>Environmental impact: Trees planted</b>	
Mixed species forest plantations	2,146,046
Silvopastoral plantations	448,848
Coffee Agroforestry	453,800*
<b>Total trees planted</b>	<b>3,048,694*</b>
<b>Number of unique tree species recorded</b>	<b>124</b>

\*includes coffee trees

# 6

# PES

# Update

## *Total payments for ecosystem services made*

Table 8 below provides a summary of the payments for ecosystem services (PES) made to date for all current participating producers. These figures have been updated since the previous report to reflect the fourth quarter of 2019.

**Table 7: PES summary – total payments made**

Payment year	PES paid (USD)
2010	\$5,019.37
2011	\$28,202.49
2012	\$97,289.83
2013	\$121,694.42
2014	\$123,505.33
2015	\$178,911.53
2016	\$309,174.00
2017	\$372,811.19
2018 (1 Jan. - 31 Dec)	\$323,913.97
2019 (1 Jan. - 31 Dec) updated	\$147,072.22
2020 (1 Jan - 31 Dec)	\$521,285.98
<b>TOTAL</b>	<b>\$2,228,880.33</b>

## *Additional payments to the community*

Other costs covered by the community fund to date include nursery expenses and occasionally grafted fruit trees and fuel-efficient cookstoves.

**Table 8: Other payments to the community to date**

Vintage (calendar year)	Additional payments (USD)
2010	n/a
2011	\$14,220.82
2012	<b>\$33,288.19</b>
2013	\$44,290.74
2014	\$52,616.07
2015	\$50,870.15
2016	\$113,955.09
2017	\$41,607.88
2018 (1 Jan. - 31 Dec)	\$91,109.51
2019 (1 Jan. - 31 Dec) updated	\$135,668.71
2020 (1 Jan - 31 Dec)	\$267,820.21
<b>TOTAL</b>	<b>\$845,447.37</b>

# 7 Ongoing Community Participation

**Taking Root continues to build community participation through existing methods and continuous experiments in the development of new methods. The existing methods used throughout the year include planting manuals, community consultations, community-led training and radio announcements.**

Furthermore, Taking Root uses the following methods to promote community participation:

**TECHNICIAN TRAINING:** the aim is to help technicians better inform the community. Training covers key points such as program financing

and the link between the program and climate change. Smallholders are later asked to answer to test the effectiveness of the training and evaluate the success of each technician's communications. This year, all training was given in reduced group sizes outside using Covid-19 best practices.

## COMMUNITY EDUCATION

**WORKSHOPS:** Taking Root staff regularly host information sessions to explain the various activities taking place throughout the year. Workshop themes included pruning and clearing around trees, information on the local environmental laws, and more. The

information sessions usually involve a component of learning by doing. All workshops were adapted to be delivered outside using Covid-19 best practices.

## PRESENTING THE LOCAL FOREST

**LAW:** the CommuniTree Program has continued holding community workshops, specifically on the local forest laws. This approach makes these often complex laws much more tangible for farmers.

**PROGRAM OUTREACH:** this year, we distributed public health information across communities and farmers for safe practices during the pandemic. *See project updates section.*



# Breakdown of Organizational Costs

## Organizational expenses and revenue

The following table provides an overview of all organizational and operational expenses and revenues in Canadian Dollars from 1 January 2020 - 31 December 2020. Because the previous Plan Vivo report included the financial information up to September 2019, expenses and revenues incurred from 1 October 2019 to 31 December 2019 were included in this year's report. These figures include both Canadian and Nicaraguan finances. It should be noted that this 12-month period overstates net revenue because it does not include end-of-year adjustments for 2020. All expenses and revenue numbers have been submitted to the Plan Vivo Secretariat but are not included in the public version of this report due to sensitivity. For more financial information on Taking Root, you can find our annual financial statements on the Taking Root website.

**Table 9: Organizational expenses and revenue in CAD for reporting period**

Reporting Period	CAD		USD	
	Oct 2019 to Dec 2019	Jan 2020 to Dec 2020	Oct 2019 to Dec 2019*	Jan 2020 to Dec 2020*
<b>REVENUE</b>				
Carbon offset sales				
Consulting and other services				
Operations revenue (e.g. wood shop, farm-inputs and coffee)				
Grants and donations				
<b>Total revenue</b>				
<b>EXPENSES</b>				
Cost of sales				
Inputs, Coffee and Woodshop costs				
Human resources				
Transport and travel				
Administration costs				
Operational Costs				
Financial fees and exchange rate loss and gains				
<b>Total expenses</b>				
<b>NET INCOME (LOSS)</b>				

\*Avg fx of 1.3279 used for Dec 2019 and 1.2732 for Dec 2020 numbers

# Appendix 1: Impacts Report Summary

**Table 10: Program summary**

<b>Project overview</b>		<b>PES and community fund payments</b>	
<b>Reporting period</b>	<b>1 October 2019 – 31 December 2020</b>		
	Mixed Species Forest Plantation		USD \$2,228,880
<b>Technical specifications in use</b>	Silvopastoral Planting		
	Shade Coffee Agroforestry		USD \$845,447
<b>Geographical areas</b>	Limay, Somoto, San Juan de Rio Coco (SJRC), Nicaragua		
<b>Areas under management</b>		<b>Payments to community fund (program total)</b>	
<b>Total areas put under management from 2020 vintage</b>	<b>2,195.70 ha eq</b>	<b>Plan Vivo Certificates and saleable tCO<sub>2</sub></b>	
Total area lost in 2020 from previous vintages	0 ha eq	Total certificates generated from this year's planting activities (gross)	734,372
Total area lost in 2020 from 2020 vintages	89 ha	Risk buffer deduction (15%)	-110,156
New area allocated to 2020 Certificate issuance	2,106.70 ha eq	Certificates from 2020 vintage allocated to losses from previous years	-0
Total areas under management as reported in previous years	2,971.8 ha eq		
<b>Areas under management (program total)</b>	<b>5,078.5 ha eq</b>	<b>Submission for Certificate Issuance for new areas (2020 vintage saleable)</b>	<b>624,216</b>
<b>Smallholders with plan vivos and PES agreements</b>			
Smallholders reported in last annual report	855	Historical allocation to Plan Vivo buffer	158,483
Smallholders with existing plan vivos adding new land since last report	92	Total Allocation to Plan Vivo buffer (program total)	268,639
New smallholders with PES agreements since last report	410	Historical Plan Vivo Certificate issuance	894,170
<b>Total smallholders with PES agreements (2020 vintage)</b>	<b>502</b>	<b>Plan Vivo Certificates issued to date (program total)</b>	<b>1,518,386</b>
Smallholders dropouts in 2020 from previous vintages	0		
<b>Total Smallholders with plan vivos and PES agreements (program total)</b>	<b>1,357</b>		

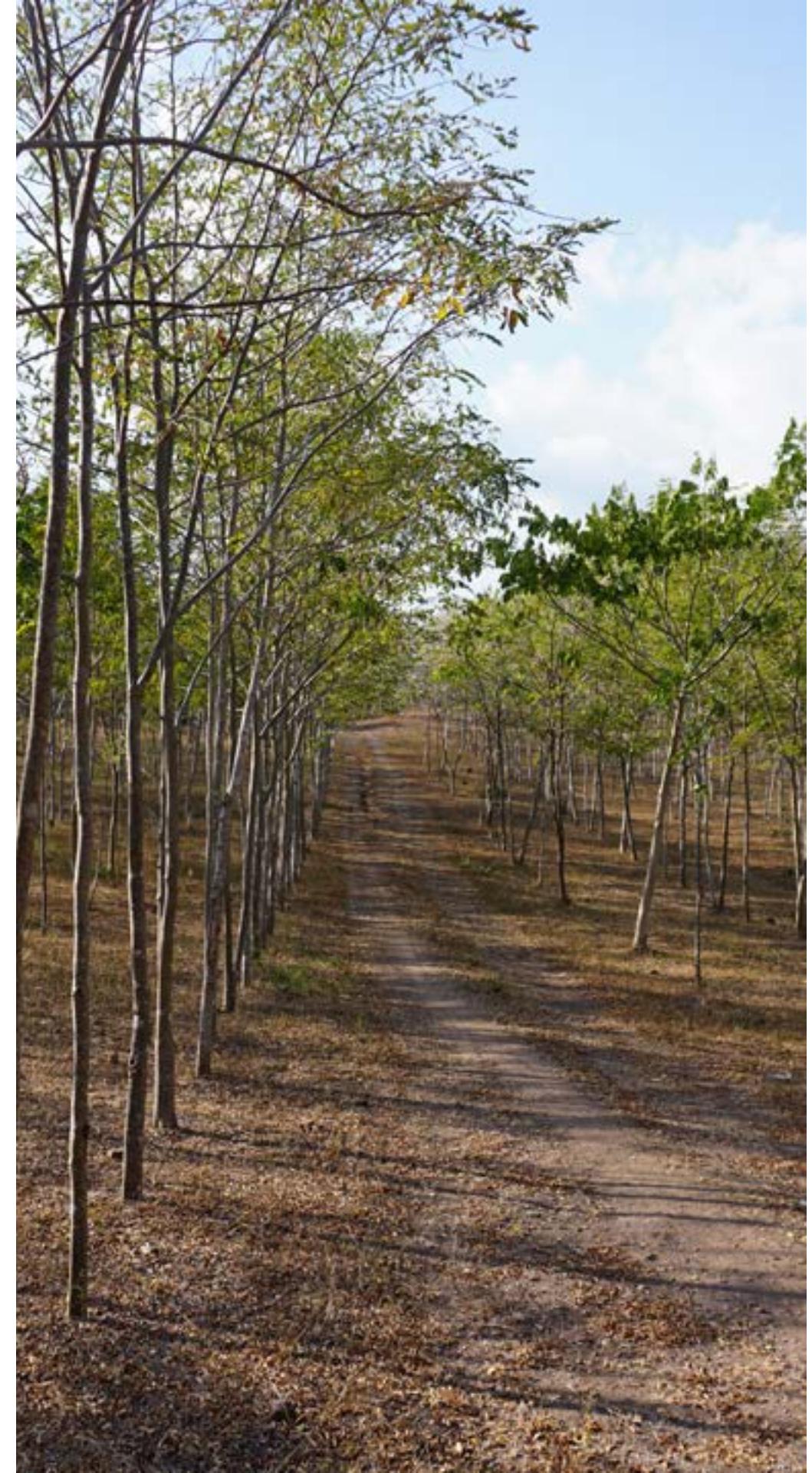
## Appendix 2: Equivalent Hectare Calculation

“Equivalent hectares” involves using the tonnes CO<sub>2</sub> sequestered per hectare of the original Mixed Species Forest Plantation technical specification as the base unit to compare the other specifications.

The following table explains the equivalents per specification compared to the base unit.

**Table 11: Equivalent hectares per technical specifications**

Technical specification	Saleable tCO <sub>2</sub> sequestered per unit	Equivalent hectares per tonnage
Mixed Species Forest Plantation (original)	296.3 tCO <sub>2</sub> /ha	1 ha = 1 ha eq.
Boundary Planting (original)	243.0 tCO <sub>2</sub> /km	1 km = 0.8201 ha eq.
Mixed Species Forest Plantation	299.7 tCO <sub>2</sub> /ha	1 ha = 1.0115 ha eq.
Boundary Planting	214.8 tCO <sub>2</sub> /km	1 km = 0.7249 ha eq.
Silvopastoral	191.9 tCO <sub>2</sub> /ha	1 ha = 0.6477 ha eq.
Coffee Agroforestry	203.23 tCO <sub>2</sub> /ha	1 ha = 0.6825 ha eq.



## Appendix 3: Land Changes in 2020

As part of this annual report, Taking Root has provided Plan Vivo with a list of specific parcels of land added to the program in 2020 linked to the issuance of certificates. Due to the increase in recruitment in this reporting season, the list have been kept out of the annual report due to size.

**This information is available upon request from:**

Plan Vivo ([info@planvivo.org](mailto:info@planvivo.org)) or Taking Root ([info@takingroot.org](mailto:info@takingroot.org))



## Appendix 4: Detailed carbon sales to date

The following table provides a detailed list of Plan Vivo Certificates sold to date by vintage.

**Table 13: Carbon sales to date**

Vintage	Name of purchaser	Certificates purchased	Price/certificate (USD)	Total received (USD)	Vintage	Name of purchaser	Certificates purchased	Price/certificate (USD)	Total received (USD)
2010	C-Level	650			2012	MyClimate	10,000		
2010	Carbon Advice Group	95			2012	Prima Klima	30,000		
2010	Carbon Finance Intel	50			2012	Taking Root	549		
2010	Prima Klima	11,009			2012	ZeroMission	20,000		
2010	Taking Root	538			2012	ZeroMission	3,899		
<b>2010</b>	<b>TOTAL</b>	<b>12,342</b>			<b>2012</b>	<b>TOTAL</b>	<b>66,207</b>		
2011	C-Level	850			2013	C-Level	1,500		
2011	C-Level	1,350			2013	CeroCO <sub>2</sub>	414		
2011	MyClimate	3,000			2013	COTAP	457		
2011	Prima Klima	20,950			2013	COTAP	158		
2011	Prima Klima	5,300			2013	MyClimate	13,000		
2011	Taking Root	1,234			2013	Prima Klima	21,181		
2011	ZeroMission	1,000			2013	Taking Root	1,324		
<b>2011</b>	<b>TOTAL</b>	<b>33,684</b>			2013	Tree-Nation	609		
2012	C-Level	1,400			2013	Tree-Nation	170		
2012	COTAP	359			2013	Tree-Nation	111		

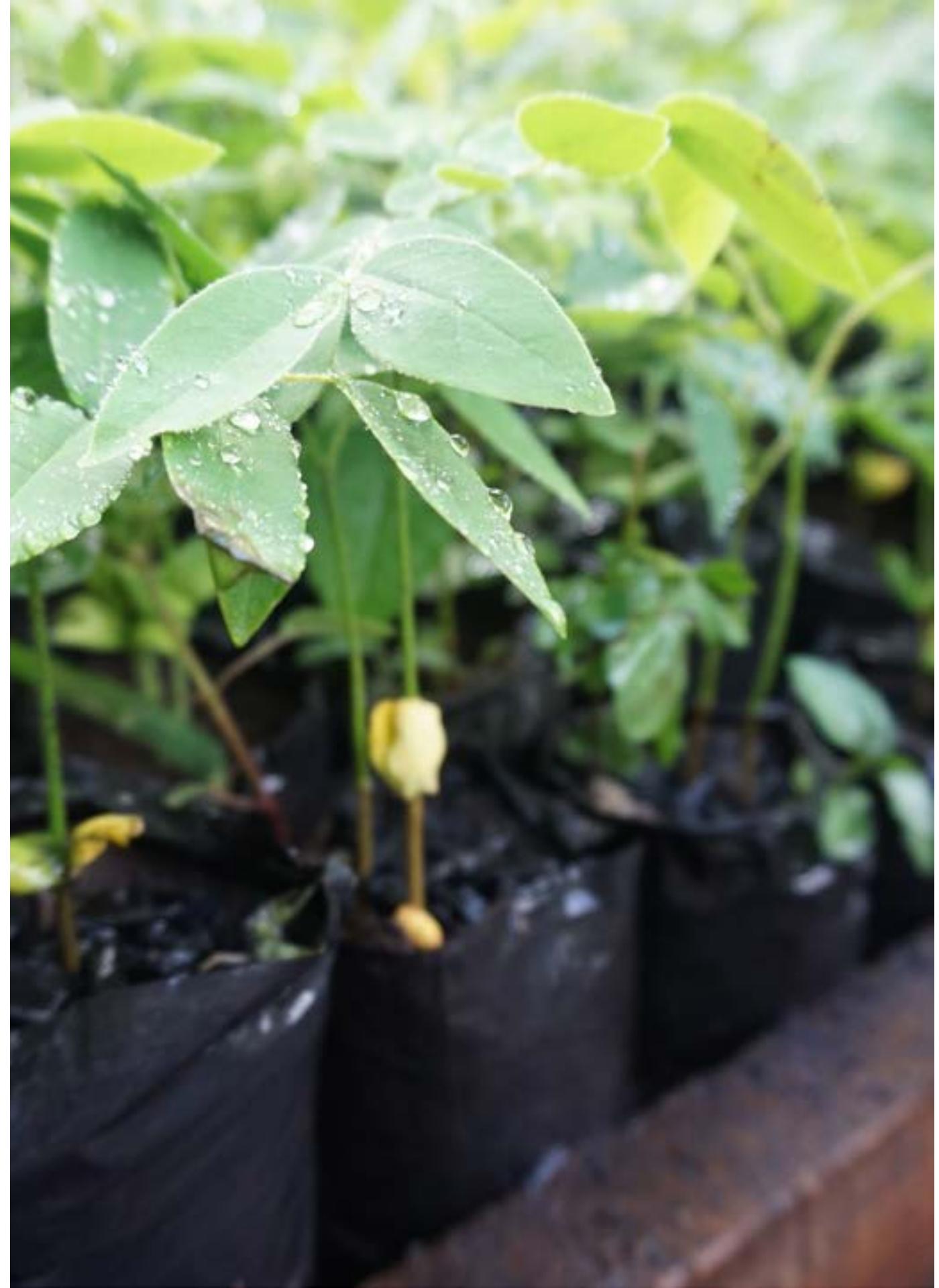
Vintage	Name of purchaser	Certificates purchased	Price/certificate (USD)	Total received (USD)
2013	Tree-Nation	229		
2013	Tree-Nation	91		
2013	ZeroMission	32,000		
2013	ZeroMission	4,979		
2013	ZeroMission	2,207		
<b>2013</b>	<b>TOTAL</b>	<b>78,430</b>		
2014	C-Level	1,000		
2014	COTAP	460		
2014	Inter-American Development Bank	24,000		
2014	MyClimate	10,000		
2014	Prima Klima	5,000		
2014	Taking Root (Retail)	481		
2014	ZeroMission	25,000		
<b>2014</b>	<b>TOTAL</b>	<b>65,941</b>		
2015	C-Level	1,100		
2015	CeroCO <sub>2</sub>	1,700		
2015	COTAP	246		
2015	COTAP	415		
2015	MyClimate	10,999		
2015	Prima Klima	17,000		

Vintage	Name of purchaser	Certificates purchased	Price/certificate (USD)	Total received (USD)
2015	Inter-American Development Bank	32,000		
2015	Tree-Nation	111		
2015	ZeroMission	25,000		
2015	Taking Root 2015 retail sales	889		
2015	Taking Root sold in 2016	702		
<b>2015</b>	<b>TOTAL</b>	<b>90,162</b>		
2016	Prima Klima	20,000		
2016	ZeroMission	31,578		
2016	CRS	31,815		
2016	Myclimate	10,000		
2016	ECODES/CeroCO <sub>2</sub>	3,600		
2016	CLEVEL	1,500		
2016	COTAP	851		
2016	Taking Root retail 2016	474		
2016	Taking Root retail 2017	1,222		
<b>2016</b>	<b>TOTAL</b>	<b>101,040</b>		
2017	Myclimate	28,000		
2017	Myclimate	16,500		
2017	ECODES	3,000		
2017	ZeroMission	15,000		

Vintage	Name of purchaser	Certificates purchased	Price/certificate (USD)	Total received (USD)
2017	Prima Klima	9,000		
2017	ZeroMission	7,637		
2017	COTAP	1,491		
2017	Zero Mission	15,400		
2017	MyClimate	1,400		
2017	C-Level	1,500		
2017	Tree-Nation	374		
2017	TR Retail 2017	2,010		
2017	TR Retail 2018	1,403		
2017	Allocated to adjust for past years	44		
<b>2017</b>	<b>TOTAL</b>	<b>102,759</b>		
2018	Arbor Day	2,800		
2018	COTAP	3,976		
2018	ECODES/CeroCO <sub>2</sub>	3,000		
2018	Myclimate	10,000		
2018	Myclimate	30,000		
2018	Prima Klima	18,000		
2018	Tree-Nation	112		
2018	Zero Mission	3,025		
2018	Zero Mission	19,807		

Vintage	Name of purchaser	Certificates purchased	Price/certificate (USD)	Total received (USD)
2018	Zero Mission	12,168		
2018	Taking Root retail	3,478		
2018	Unsold	118		
2018	Adjusting for past years	68		
<b>2018</b>	<b>TOTAL</b>	<b>106,552</b>		
2019	C-Level	9,215		
2019	COTAP	4,000		
2019	ECODES	6,000		
2019	MyClimate	50,000		
2019	Prima Klima	25,993		
2019	Tree-Nation	3,965		
2019	Zero Mission	135,000		
2019	Taking Root retail	877		
2019	Unsold	2,003		
<b>2019</b>	<b>TOTAL</b>	<b>237,053</b>		
2020	Amavida	173		
2020	Arbor Day Foundation	80,000		
2020	BBTV	258		
2020	C-Level	18,047		
2020	COTAP	2,395		
2020	Dawson College	5,374		

Vintage	Name of purchaser	Certificates purchased	Price/certificate (USD)	Total received (USD)
2020	Dunsky	42		
2020	ECODES	3,000		
2020	FairShares	800		
2020	MyClimate	100,000		
2020	Oneka	620		
2020	Prima Klima	127,413		
2020	Reforestation World	4		
2020	Spring Activator	24		
2020	Taking Root	489		
2020	Tense Watch	50		
2020	Tree Nation	11,137		
2020	Zero Mission	140,000		
2020	Unsold at time of report	134,390		
<b>2020</b>	<b>TOTAL</b>	<b>624,216</b>		
<b>All years</b>	<b>GRAND TOTAL</b>	<b>1,518,386</b>		



## Appendix 5: Monitoring Results

As part of this annual report, Taking Root has provided Plan Vivo with monitoring results for forest inventories from plan vivo certificates generated in 2020, as well as plan vivo certificates generated from 2010-2019. These monitoring results are used to trigger farmer payments. If all required targets are met, the producer receives full payment. If some targets only meet the threshold, producer receives partial payment. If some targets do not meet threshold, payment is not received. Due to the increase in recruitment in this reporting season, the monitoring results have been kept out of the annual report due to size.

This information is available upon request from:

Plan Vivo ([info@planvivo.org](mailto:info@planvivo.org)) or  
Taking Root ([info@takingroot.org](mailto:info@takingroot.org))



# Appendix 6: New Communities in 2020

The following list contains all of the new communities that have farmers participating in PES agreements.

#	Community	#	Community	#	Community	#	Community
1	Aguas Calientes	18	Cantil de las Canas	35	Cuyali	52	El Castillito
2	Amucayan	19	Carrizos	36	Delcias de Canton	53	El Castillo
3	Arado Quemado	20	Casa de Piedra	37	Diamante	54	El Cerro De Jesus
4	Areanales 2	21	Casco Urbano (Las Sabanas)	38	Doradito	55	El Chiquirin
5	Bado Hondo	22	Casco Urbano (Limay)	39	Ducuali	56	El Citrico
6	Balsamo Abajo	23	Casco Urbano (Somoto)	40	El Achote	57	El Cobano
7	Balsamo Arriba	24	Casco Urbano santo tomas	41	El aguacate	58	El Erbedero
8	Balsamo Centro	25	Casili	42	El Aguila	59	El Espino
9	Balsamo la Francia	26	Cayantu	43	El ArrayÃin	60	El Garcero
10	Balsamo Vista	27	Cedrales	44	El Balcon	61	El Guanacaston
11	Beunos Aires de Santa Rita	28	Cerro Blanco	45	El Cacao - Quilali	62	El Guayabo
12	Buena Vista	29	Cerro Blanco Abajo	46	El Calero	63	El Guaylo
13	Buena Vista - SJRC	30	Cerro Blanco Arriba	47	El Camastro	64	El Gurrión
14	Buena Vista Del Penon	31	Chusli	48	El Capulin	65	El Iguaje
15	Cacahuatal	32	Comayagua	49	El Carmen	66	El Jabillo
16	Cacauli	33	Cuatro Esquinas	50	El Carrizal	67	El Jacote
17	Camuapa, Buena Vista	34	Cusmaji	51	El Cascabel	68	El Jicaral

#	Community	#	Community	#	Community	#	Community
69	El Lechon	89	El potrerillo	109	Guanacastillo	129	La Jungla
70	El Limon (Limay)	90	El Rapador	110	Guasuyuca	130	La laguna
71	El Limon (Somoto)	91	El Regadio	111	Guayabia	131	La Loma
72	El Limon (Yalaguina)	92	El Regen	112	Hermanos Martinez	132	La Luz
73	El Melonar	93	El Rodeo	113	Icalupe	133	La Luz - Quilali
74	El moralito	94	El Rodeo - Zomotillo	114	JiÃ±ocuao	134	La Majada
75	El Naranjo	95	El Rodeo Grande	115	Jocomico	135	La Naranja
76	El Naranjo - Achuapa	96	El Socorro	116	Juigalpa	136	La Palanca
77	El Ojochal	97	El Tamarindo	117	Juigalpa, San Miguelito	137	La Palma
78	El Ojoche	98	El Terrero	118	La Bolsa	138	La pita
79	El Ojochito	99	El Tunal	119	La Bugona	139	La Playa
80	El Palmar	100	El Varillal	120	La Carbonera	140	La Povidencia
81	El paraiso	101	El Volcan	121	La Ceibita	141	La Presa
82	El pastate	102	El yanito	122	La Flor	142	La Providencia
83	El Pegador	103	El Yaraje	123	La Florida	143	La Sandinom
84	El Pegon	104	El Zapote	124	La Garcia	144	La Tunosa
85	El Pernal	105	El Zapote - Somoto	125	La Garita	145	Las Animas
86	El Plan	106	El Zapotillal	126	La Grecia	146	Las Brisas
87	El Portal	107	El Zungana - Quilali	127	La Ilusion	147	Las Canarias
88	El Portillo	108	Escambray	128	La joya	148	Las Canas

#	Community	#	Community	#	Community	#	Community
149	Las Canas - SJRC	169	Las Veredas	189	Los Tablones	209	Paraisito 1
150	Las Chacaras	170	Las Victorias	190	Los Valcones	210	Paraisito 2
151	Las Cruces	171	Lima	191	Mala Ladera	211	Paraisito Arriba
152	Las Delcias	172	Lomochata	192	Maquingales	212	Paredes del Valle
153	Las Delicias de las Cañitas	173	los Angeles	193	Matadero	213	Parsila
154	Las Delicias del Canton	174	Los Arados	194	Matapalo	214	Paso Real
155	Las Filas	175	Los Atillos	195	Matapalo - SJRC	215	Patio Grande
156	Las Garcias Susukayan	176	Los Cedros	196	Mateare	216	Peña de cafen
157	Las javillas	177	Los Cerritos	197	Mateares	217	Peteres
158	Las lajitas	178	Los Cerros	198	Mojon	218	Platanares
159	Las Mesitas	179	Los Chapetones	199	Monte Redondo Condega	219	Plazuela
160	Las Minitas	180	Los Colorados	200	Morcillo	220	Pueblo Nuevo
161	Las Nubes	181	Los Copales	201	Motuse	221	Quebrada de Agua
162	Las Papayas	182	Los Encuentros	202	Musuli	222	Quebrada Grande
163	Las Pintadas	183	Los Jardines	203	Naranjo	223	Quebrada Honda
164	Las Positas	184	Los Mangos	204	Nueva Esperanza	224	Quebrada Negra Arriba
165	Las Sabanas	185	Los Pavones	205	Ocotillo	225	Quebrada Onda
166	Las Tablas	186	Los Pinares	206	Oruce	226	Quibuto
167	Las Vegas	187	Los Ranchos	207	Palacaguina	227	Quisaurita
168	Las Ventanas	188	Los Rincones	208	Palo Blanco	228	Quisuli Abajo

#	Community	#	Community	#	Community	#	Community
229	Rio Arriba	245	San Antonio de las Nubes	261	San Pablo Abajo	277	Tiosintal
230	Rio Arriba El Limon	246	San Bartolo Yalaguina	262	San Pedro	278	Totogalpa
231	Rio Arriba Yali	247	San Diego	263	San Pedro - San Lucas	279	Tranquera
232	Rito Abajo	248	San Francisco	264	San Pedro las caÑas	280	Trozas
233	Robert	249	San Gregorio	265	San Ramon	281	Varillal Ariba
234	Rodeito	250	San Jose	266	Santa Ana	282	Varillal San Pablo
235	Sabana	251	San Jose de Palmira	267	Santa Domingo	283	Ventina Balsamo Abajo
236	Sabana Grande	252	San Jose del Ojoche	268	Santa Lucia - Condega	284	Vera Cruz
237	Sabana Grande - Condega	253	San Juan de Somoto	269	Santa Rita	285	Verapaz
238	Saguatepe	254	San Lorenzo	270	Santa Rosa	286	Victorina
239	Salto del Tigre Susucayan	255	San Lucas	271	Santa Rosa - Achuapa	287	Vijagual
240	Samarkanda	256	San Luis	272	Santa Teresa	288	Yalaguina
241	San Antonio	257	San Marcanda	273	Sonis	289	Yali
242	San Antonio Abajo	258	San Miguelito	274	Tanque	290	Zapotillo
243	San Antonio Arriba	259	San Pablito 1	275	Tierra azul	291	Zona 1
244	San Antonio Chachagua	260	San Pablo 2	276	Tierras Coloradas	292	Zona 6

## About Taking Root:

Taking Root is an internationally acclaimed reforestation not for profit on a mission to regenerate forest ecosystems by improving farmer livelihoods. We work with farming families around the world to grow forests alongside agricultural practices. Taking Root's unique impact comes from its use of technology to direct funders' investments into verified climate impacts with farming communities. Our innovative technology platform, FARM-TRACE, provides third party forest and carbon reporting by combining local, satellite and machine learning data. This means funders can track and improve their climate impacts with confidence while ensuring farmers benefit from the sustainable farming practices they adopt. With over a decade of delivering successful outcomes, Taking Root's model is being applied around the world to reverse the degradation of the world's tropical forests and improve farmer livelihoods.



**TAKING ROOT**  
Reforestation with Impact

**Contact us:**

**Taking Root**

300 - 948 Homer Street, Vancouver, BC, V6B 5S3  
+1 604 966 1329 | [info@takingroot.org](mailto:info@takingroot.org)

[takingroot.org](http://takingroot.org)