FUTURO FORESTAL
IMPACT FORESTRY

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TECHNICAL REPORT WALDMENSCHEN AND FORESTAL FILO DEL TALLO 2023

OPERATIONAL PLAN EXECUTED, 2023

Prepared by: Juan González and Technical Team

Content

1. Introduction

1.1. General Information

The project is owned by Waldmenschen S.A. and Forestal Filo del Tallo S.A. The most relevant information of these companies is detailed in the following tables.

Table 1. **General Information of Waldmenschen S.A.**

Company Name	Waldmenschen, S.A.
Registration Date	21 of March de 2007
Folio	560221
File	560221
Document	1102628
Organization Type	Anonymous Society
Status	Standing
Address	Parker Drive #923A, Clayton, Panamá
Legal Representative	Andreas Eke
Nationality	Alemán
Identification	E-8-69322
Phone	(507) 317-1431
e-mail	aeke@futuroforestal.com
Web	http://www.futuroforestal.com

Source. Futuro Forestal, 2023.

Table 2. **General Information of Forestal Filo del Tallo S.A.**

Company Name	Forestal Filo del Tallo, S.A.
Registration Date	25 of November 2022
Folio	155730295
File	155730295
Organization Type	Anonymous Society
Status	Standing
Address	Parker Drive #923A, Clayton, Panamá
Legal Representative	Andreas Eke
Nationality	Alemán
Identification	E-8-69322
Phone	(507) 317-1431
e-mail	aeke@futuroforestal.com
Web	http://www.futuroforestal.com

Source. Futuro Forestal, 2023.

The general information of the company that manages the reforestation project is also presented, which is in charge of supervising all the silvicultural management activities programmed in the plantations, thus guaranteeing the execution of the work.

Table 3. **General Information of Futuro Forestal S.A.**

Company Name	**Futuro Forestal, S.A.**
File	295406
Rollo	44372
Image	48
Organization Type	Anonymous Society
Status	Standing
Address	Parker Drive #923A, Clayton, Panamá
Legal Representative	Andreas Eke
Nationality	Alemán
Id Number	E-8-69322
Phone	(507) 317-1431
e-mail	aeke@futuroforestal.com
Web	http://www.futuroforestal.com

Fuente. Futuro Forestal, 2023.

1.2. Report Objectives

The purpose of this document is to show in detail all the reforestation and maintenance activities developed during the year 2023, it will also provide information regarding exchanges between the communities near the project and the work team of Waldmenschen and Forestal Filo del Tallo, challenges and challenges to achieve the reforestation and maintenance of the year 2023. It is made up of data related to years of planting, mortality percentages, pest and disease effects, silvicultural activities for plantation management, maps, growth sampling, construction and adaptation of forest roads, improvements in housing infrastructure (dry latrines, beds, kitchens, tanks, water storage and filtering systems, solar systems), among others.

1.3. Summary of Report

This report details the silvicultural activities carried out in the 2023 operational period, in which the maintenance of reforested projects from 2015 to 2022 and the establishment of new projects in 2023 were executed.

In 2023, a total of 463.67 ha has been reforested, of which 40 ha were established in the Colon Unit, in the Gatun 2 farm, completing all reforestation in the province of Colon, and 423.67 ha in the farms of the province of Darien. In addition, a total of 747.61ha of reforestation has been maintained.

The species most used in reforestation were Cocobolo, Amarillo, Roble, Mahogany, Almendro and Bitter Cedar. In addition to these, other species were planted in smaller quantities such as Amarillo Guayaquil, Balsamo and Ron Ron.

The biggest challenge in 2023 has been the "El Niño" weather phenomenon that has prolonged the dry season and significantly reduced the amount of rainfall in the year. A result of this climatic challenge are mortalities of a higher percentage of the 2022 plantation. Especially species such as Roble, Almond, Mahogany and Berbá showed higher than usual mortalities, depending on the sites and humidity encountered.

In relation to planting, different measures have been taken to reduce the impact towards reforestation 2023. In response to this, the reforestation goal has been reduced, because it depends on a minimum soil and site moisture for the planting to be positive. As mitigation measures, rainfall and soil moisture were monitored during planting, the percentage of seedlings of drought-resilient species (esp. Cocobolo) has been increased, and the application of organic mulch around the seedlings has been intensively applied to maintain a higher humidity around the seedlings.

In the Filo del Tallo farms, more than 15 hectares have been planted using the planting machine, with Cocobolo and Amarillo species. An activity that foresees the technological innovation of the company. The results have been positive. The main limitation of the use of the machine is the terrain and soil, which cannot be used in all sites (e.g. on slopes).

FIGURE 1. PHOTO OF COCOBOLO PLANTING ACTIVITY.

2. General description of the project

2.1. Location

Operating units in the province of Darién

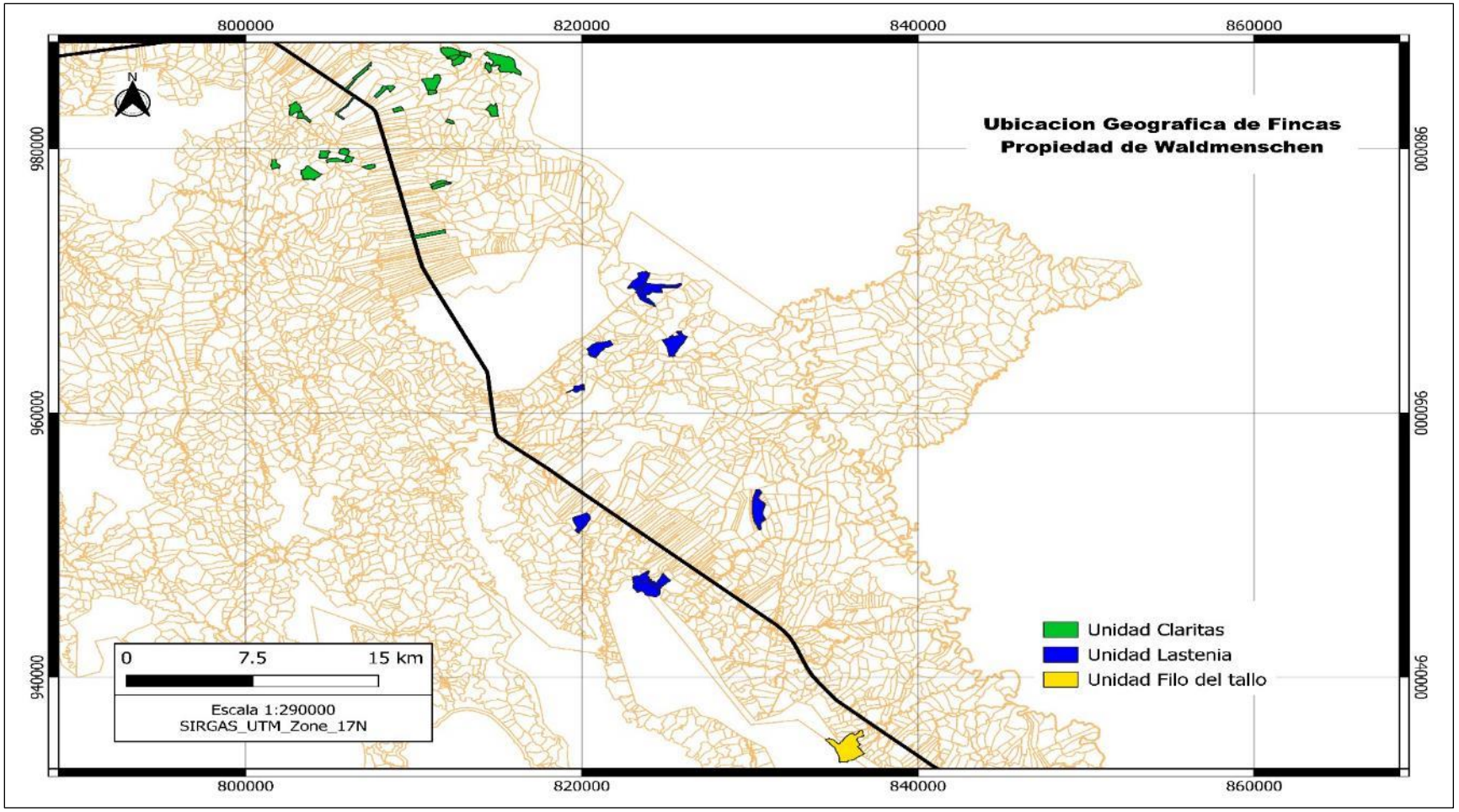


FIGURE 2. MAP OF THE LOCATION OF THE OPERATING UNITS IN THE PROVINCE OF DARIÉN.

Farms in the province of Colon

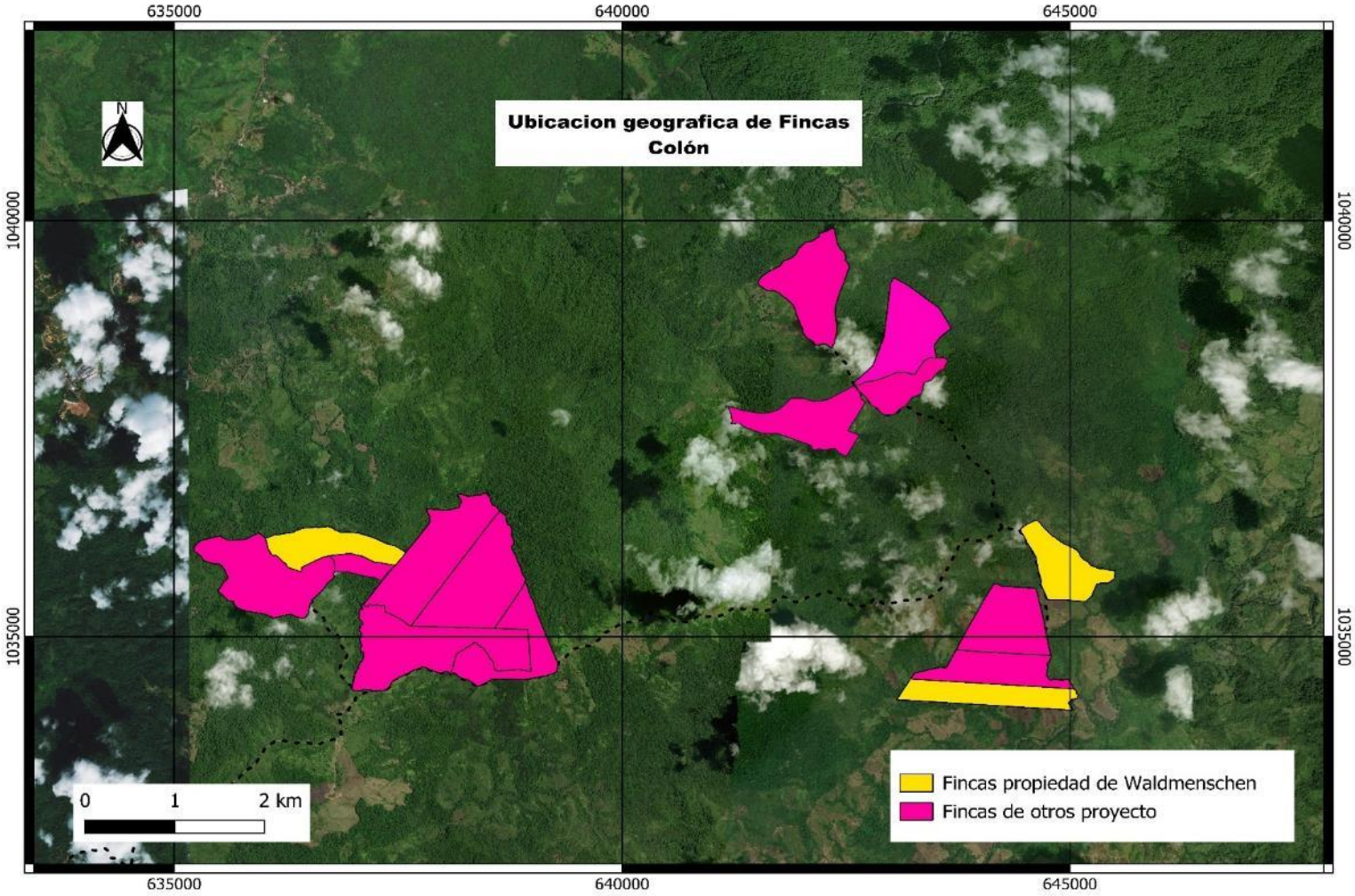


FIGURE 3. MAP OF THE GEOGRAPHIC LOCATION OF THE FARMS IN THE PROVINCE OF COLÓN

2.2. Surface

Table 4. **REFORESTED SURFACES OF THE WALDMENSCHEN AND FORESTRY FARMS OWNED BY WALDMENSCHEN AND FORESTAL FILO DEL TALLO.**

Farm	Farm No.	Planting Year	Total Area Planted	Total Area
Reina	2015	2013	12.00	25.40
		2015	2.70	
		2017	6.00	
		2022	1.06	
Subtotal			**21.76**	**25.40**
CLARITAS				
Darío Castro	1866	2021	31.61	42.63
Raúl Castro	3479	2021	14.40	26.96
Genarino Peralta	2627	2022	9.82	21.60
Gindy Trujillo	886	2022	16.04	17.94
Joaquín Hernández	30387827	2022	15.87	25.00
Sandra Fernández (Espavé)	960	2022	29.23	50.57
		2023	1.49	
Ubaldino Consuegra	4869	2022	6.91	22.61
Agustín Banda	3119			0.37
Agustín Banda	2796			39.64
Agustín Banda	4152			37.37
Clarita 1	30123319	2021	39.25	43.00
Clarita 1	30124630	2021	33.49	40.00
Clarita 2	218060	2021	13.33	17.30
		2023	0.09	
Clarita 3	235668	2021	8.70	42.23
Límite	30358872	2021	11.10	16.44
		2022	2.04	
La Ponderosa	280254	2020	8.41	26.72
		2021	12.42	
La Ponderosa	218957	2020	2.63	8.93
		2021	4.21	
La Ponderosa	235655	2021	10.66	13.17
La Ponderosa		2021	1.83	2.48

	Possessory right in the process of purchase			
Raúl Espinoza	217884	2022	24.39	36.94
		2023	0.68	
Curry (Las 15)	218047	2022	9.97	14.83
Gerónimo Castro	30361092	2022	9.06	10.42
Tello 1	3905	2022	30.58	38.43
Teófilo Herrera	6087	2022	33.96	43.53
Tello 3	3123	2022	13.65	19.29
Dalys García (La Esperanza)	30359853	2022	13.54	16.27
Cati García (La Esperanza)	30359842	2022	8.86	16.48
		2023	1.08	
Maite García (La Esperanza)	30358742	2022	11.15	16.44
Miguel García (La Esperanza)	1962	2022	32.85	52.83
		2023	1.57	
Edilberta García (La Esperanza)	30359110	2022	11.74	16.49
		2023	0.21	
Maite García (La Esperanza)	30358613	2022	12.09	16.38
Bélgica García (La Esperanza)	30359029	2022	7.92	16.59
		2023	6.17	
Tello 2	313219	2023	12.90	18.83
Clamades Villareal	30394427	2023	39.90	57.60
David Fernández	190400	2022	11.79	23.85
David Fernández	190401	2022	1.90	2.29
David Fernández	190371	2022	2.09	2.48
Uri	6276	2023	12.26	16.81
Elia Castillo	30418636	2023	15.82	25.00
Subtotal			**599.65**	**956.74**
COLÓN				
La Conexión	6704	2019	5.07	48.99
Gatún 1	DP Expedient ADJ-3-98-2019	2019	27.24	48.98
Gatún 2	4516	2023	40.00	49.42

Subtotal			**72.31**	**147.39**
LASTENIA				
Lastenia #1	1284	2022	23.14	49.6331
Lastenia #1	2453	2022	3.57	49.4848
Lastenia #2	6159	2022	21.91	46.3466
		2023	6.95	
Lastenia #3	342926	2022	19.15	48.8143
Lastenia #4	30163457	2022	14.14	27.277
Lastenia #5	2719	2022	54.42	94.4471
		2023	0.50	
Marcelino Guerra	30336549	2023	4.67	7.18
Marcelino Guerra	920	2023	2.76	3.3456
José Gabriel García Ureña	444101	2023	23.56	46.5085
Luis De Gracia	316283	-	-	96.893
Carlos Solís	30150308	-	-	30.60
Avendaño (Altos del Cristo)	1289	2022	9.04	37.52
		2023	17.94	
Avendaño (Altos del Cristo)	2162	2022	0.47	10.801
		2023	6.45	
Avendaño (Altos del Cristo)	1663	2022	2.31	37.7475
		2023	27.02	
Subtotal			**238.00**	**586.60**
NICANOR				
Nicanor #1	1182	2022	16.32	37.1034
		2023	2.47	
Nicanor #2	5553	2022	10.35	35.1341
		2023	10.91	
Nicanor #3	1519	2022	10.00	47.63
		2023	20.95	
Nicanor #4	1781	2022	5.60	48.117
		2023	18.02	
Margarito Banda	1336	2023	20.32	37.1533
Margarito Banda	1339	2023	19.63	28.896
Jorge Noriel De León	470912	-	-	41.87
Jorge Enrique De León	4902	-	-	59.23
Jorge Enrique De León	3712	-	-	41.87

Subtotal			**134.57**	**377.00**
FILO DEL TALLO				
Agustín Freddy González	3754	2023	14.80	19.19
Freddy Agustín González y hermanos	1668	2023	22.21	40.22
Agustín Fredy González	1427	2023	30.10	46.92
Hermenegildo Castro	1069	2023	53.03	99.54
Hermenegildo Castro	2001	2023	29.22	70.99
Subtotal			**149.36**	**276.86**
Total			**1215.65**	**2370.00**

3. Reforestation activities during reforestation

Table 5. **ACTIVITIES DEVELOPED IN THE REFORESTATION OF THE FARMS.**

Description of planting, maintenance, and management tasks carried out in the Waldmenschen and Forestal Filo del Tallo 2023 projects.	
Weed control	It is the elimination of vegetation that competes for light and nutrients with the planted trees.
Pest and disease control	Permanent control of pests and diseases, as well as of muleteers.
Cleaning in slices	It is the elimination of vegetation with a machete, one meter wide around the tree.
Cleaning of the boundary	This is done to keep the boundaries of the farms clean.
Strip cleaning	Elimination of vegetation in the planting row, this cleaning is alternated with slice cleaning, in order to reduce costs.
Removing lianas	Eliminate vegetation that is entangled in the trees.
Machete fern control	Ferns are for planted trees a strong competition and very expensive.
Apex management	Mainly in *Terminalia amazonia*, which tends to develop several apices, with competition occurring at the main apex.
Clearance	It is used to cut the branches of shrubs that make for a high shade. The clearing is to give more light to the tree.
Release of trees	Elimination of competition for valuable trees from natural regeneration.
Liming	Lime compounds are applied to regulate pH, only in pH less than 5, and applied to the soil around the seedlings.
Fertilization	Add fertilizers.
Mechanization	Grassland clearing activity.
Planting machine	Specialized machine to perform the planting activity.
Replanting	To determine the percentage of replanting, the field technicians review the plantations between November and December in order to have a

	preliminary estimate of plantation detachment in the farms. At the end of the summer, the plantations are checked again to obtain more precise data (mortality), which defines the replanting, and the activity is carried out as soon as the rains begin.
Removal of sprouts	Elimination of regrowth at the base of the tree.
Teak pruning	Elimination of low burrs.
Pruning elevation	Eliminate branches over 7 meters high.
Teak Unsucker	Suckers are new branches on the commercial trunk. They should be eliminated when they are very tender, to maintain good wood quality.
Formation pruning	It is the elimination of low branches in young trees to induce them to reach a commercial height.
Marking	It is carried out in the establishment for the creation of strips that always go against the slope to avoid erosion.
Thinning marking	Selection and marking of trees to be removed at early ages.
Manual making planting-holes	In this activity the hole is made with the intention of removing the soil so that the seedling finds a loose and aerated soil and adapts better.
Strip clearing	Seedling field arrays are designed and marked with a stake
Slice for establishment	This is done to clear the area where the hole is to be drilled of weeds and to make it less difficult for the augers to drill the hole.
Thinning	It is the elimination of trees that must be removed in order for the best trees to grow. It is to make room for those that remain.
Soil conservation	These are works carried out to reduce water erosion. It is the construction of physical barriers to stop the dragging of water in times of rain.
Fire Break Rounds	Cleaning of boundaries and fire roads, elimination of combustible material such as leaves and sticks.
Perimeter fence maintenance	Repair of fences to prevent cattle from entering the farms.
Phytosanitary control	Permanent control of pests and diseases, as well as of muleteers.
Monitoring	Measurement of tree diameter and height growth.
Subsoiling	Deep removal to improve soil structure.
Tilling	Soil fragmentation after subsoiling.
Planimetry	Division of hectares into small squares to facilitate planting.
Sectorization	Identify the areas that meet the conditions for each species.
Trainings	Cocobolo pruning, yellow; Planting activity*; Hypsipyla grandella* control; Regeneration management; Fire control and first aid; and in Microsoft Excel.
FSC (Forest Stewardship Council) trainings	They are given to the company's collaborators, consisting of varied and explanatory topics about the Good Forest Management certification. Topics range from: What is FSC certification? Personal protection equipment; use and handling of agrochemicals; first aid; protection of water sources; forest nursery activities; among others.

4. Description of planting preparations

Planimetry

For the preparation of the farms to be established, a tour of the boundaries of the farm is made with GPS, once we have this information supported by a geographic information tool (QGIS) we proceed to make small grids of three thousand six hundred square meters, this is known as planimetry, this work is done by external personnel to the company. These points are then identified in the field with a half-inch PVC pipe.

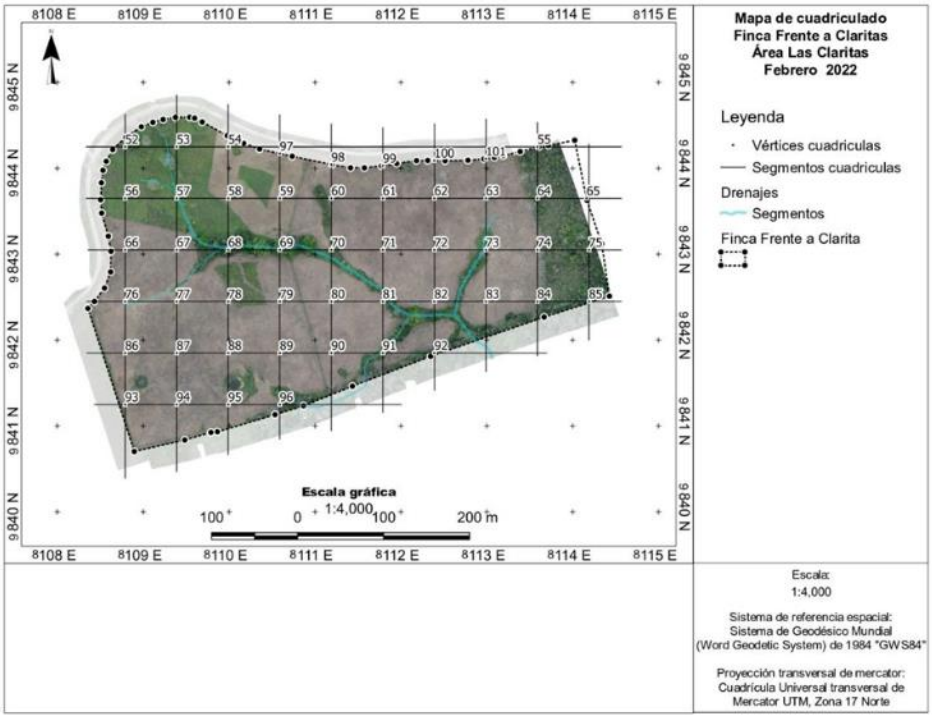


FIGURE 4. PLANIMETRY OF LA FINCA CURRY (LAS 15) N° 8045.

Orthophotos

These are aerial images taken through a Drone, with the objective of identifying the conditions and status of the farm, the different areas such as a stream, forest cover protection area, infrastructure, or others, thus delimiting the areas according to their condition. This image shows the 5 farms that belong to the Filo del Tallo operational unit.

FIGURE 5. ORTOPHOTO FINCA (FINCAS OF FILO DEL TALLO UNIT).

Sectorization of farms

The sectorization of a farm consists of proposing and identifying the areas that meet the characteristics required by each species to be planted, this is done using GPS and Drones.

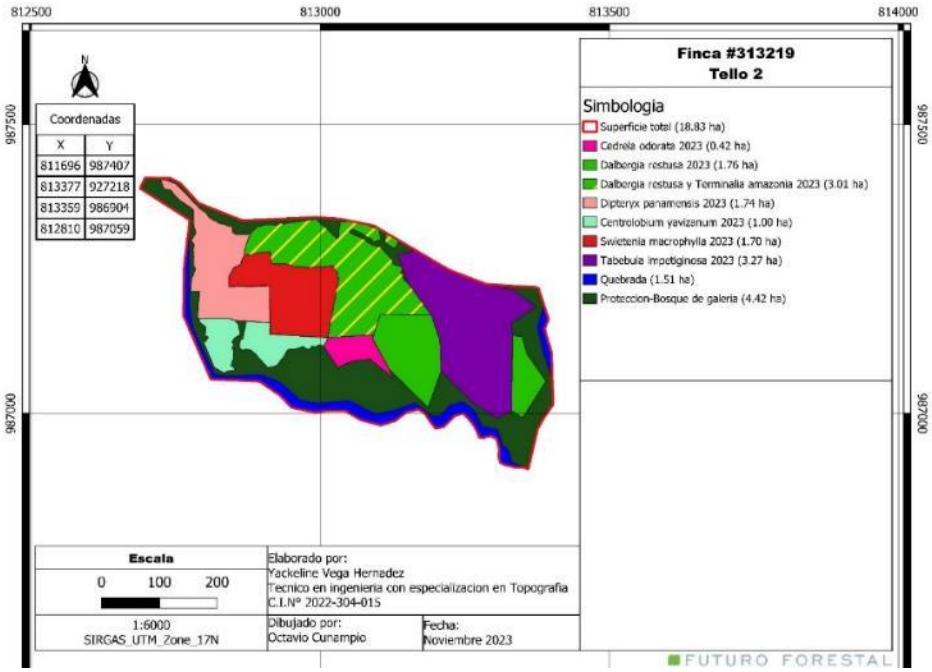


FIGURE 6. SECTORIZATION OF FARMS (FINCA NO. 313219 TELLO 2).

Planting machine in Filo del Tallo

FIGURE 7. USE OF THE PLANTING MACHINE (FARMS OF THE FILO DEL TALLO UNIT).

FIGURE 8. USE OF THE PLANTING MACHINE (FARMS OF THE FILO DEL TALLO UNIT).

5. State of development of reforestation

5.1. Farm No. 2015 La Reina

Description of development

Farm La Reina demonstrates good development of its teak plantations and has a very good natural regeneration, which was surveyed by GPS and is being managed. The focus of activities has been on plantation maintenance, weed and pest control. Mortality of what was planted in 2022 has been lower, given the fact that it is reforestation in areas under existing reforestation. Thus, the good humidity allowed a high survival rate of the seedlings.

It is important to note that initially the species selected for the reforestation project in the Waldmenschen Farms, considered a total of 5 species, however, seeking to give more biodiversity to the plantation and taking advantage of the spaces that have been left between the plantation by thinning, the following species have been introduced at an average planting density of 6m x 6m (these are scattered under the teak plantation) on the farm: Balsamo (*Myroxylon balsamum*), Mahogany (*Swietenia macrophylla*) and Almond (*Dipteryx panamensis*).

Pest attacks, diseases, or fire occurrences

There were no reports of diseases or fires on the farm during the period 2023, only information on the presence of pests was received, but they are not significant attacks, in the sense that they do not generate losses in the plantation lots.

On the farm we have species belonging to the Meliaceae family and these are commonly attacked by the Meliaceae borer, Hypsipyla grandella, which attacks the tender shoot or apex of the tree, which is handled, it is eliminated manually by cutting with scissors, transversely, the pest is eliminated and cut at the first regrowth.

Leaf-cutter ants atta keep their nests inside the plantation or in the farms of the neighbors, the cutters cut and carry fragments of tender leaves with aqueous content for the cultivation of the fungus. This activity depends on the times of abundance or scarcity of rainfall, in the latter case they do it at night between 6 and 10pm, they strip the seedlings of their leaves in its entirety delaying the growth of seedlings, the farms found anthills at

different points, for control we do the manual application of Mirex, we create an action plan to prevent the formation of new anthills and the control or eradication of those present with permanent tours.

Table 6. **CASES OF ATTACKS OF PESTS IN FARM REINA**

Farm No.	Date of event	Aprox. Área afected(m^2 ó has)	Indicate event: (fire, plague, disease)	Opinion of the qualified forestry professional on the state of the plantation.
2015	June - December	2.00	*Hypsipyla grandella* attack	Specifically in the lots where the cedar trees were planted. Once the attack was identified, the affected area was pruned.
2015	Abril - August 2022	8.70	Leaf-cutter ants attack	In different sites of the indicated farms, causing damage to the foliar system of the seedlings.

Summary of reforestation

Table 7. Categorization of reforested areas.

Farm No. 2015 - Reina									
Planted species		**Initial distance (m)**	**Tree/ha**	**Year of planting**					**Reforested area/ species (ha)**
Common name	**Scientific name**			**2013**	**2015**	**2016**	**2017**	**2022**	
Almendro	*Dipteryx panamensis*	Dispersed	Dispersed					0.06	0.06
Bálsamo	*Myroxylon balsamum*	Dispersed	Dispersed					0.09	0.09
Caoba	*Swietenia macrophylla*	Dispersed	Dispersed					0.11	0.11
Cedro Amargo	*Cedrela odorata*	Dispersed	Dispersed				1	0.24	1.24
Cocobolo	*Dalbergia retusa*	4x4	625		2.7	2			4.70
Guayacán Morado	*Tabebuia impetiginosa*	Dispersed	Dispersed					0.32	0.32
Mora	*Maclura tinctorea*	Dispersed	Dispersed				1		1.00
Roble	*Tabebuia rosea*	Dispersed	Dispersed				2	0.24	2.24
Teak	*Tectona grandis*	3x3	1111	12					12.00
Total reforested				**12**	**2.7**	**2**	**4**	**1.06**	**21.76**
Protected area									3.64
Total surface area									**25.40**

Farm map

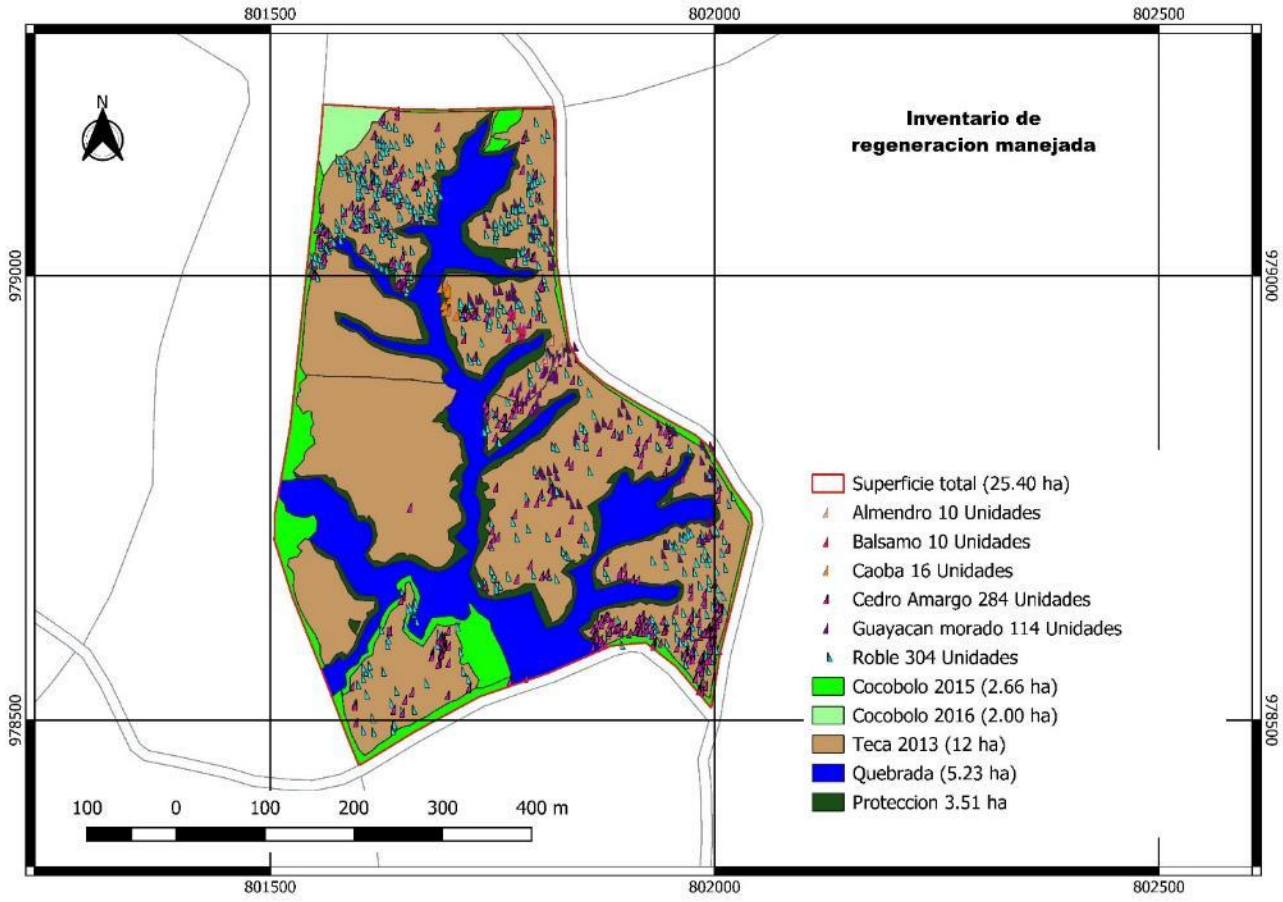


FIGURE 9. MAP OF LA REINA FARM (NO. 2015).

Monitoring and growth data

Average growth of natives, planting year 2015 and 2016.

Dalbergia retusa 2015

Based on the results obtained from the 2023 monitoring and the inclusion of another plot, it is possible to observe the good development of the Cocobolo trees, obtaining more representative data of the species.

Table 8. Growth data.

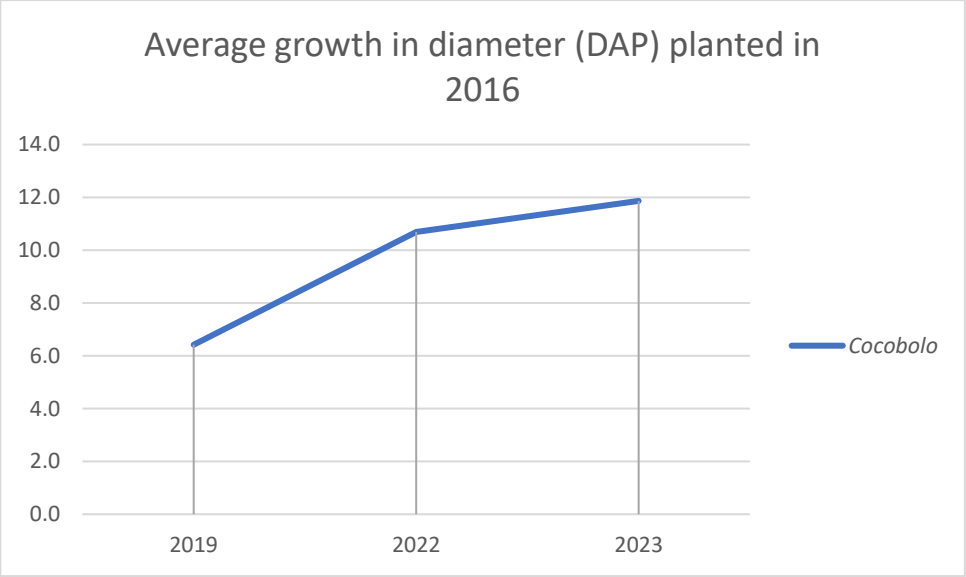
Darién		Growth Data: Reina					2015		
Common name	**Scientific name**	**Planting year**	**Year of measurement**	**Age**	**Average DBH (cm)**	**Average Ht (m)**	**IMA DAP**	**IMA Ht**	**AB/ha (m2/ha)**
Cocobolo	*Dalbergia retusa*	2015	abr-22	6.7	3.83	4.77	0.58	0.72	0.0115
Cocobolo	*Dalbergia retusa*	2015	mar-23	7.8	6.75	6.81	0.84	0.85	2.160

Dalbergia retusa 2016

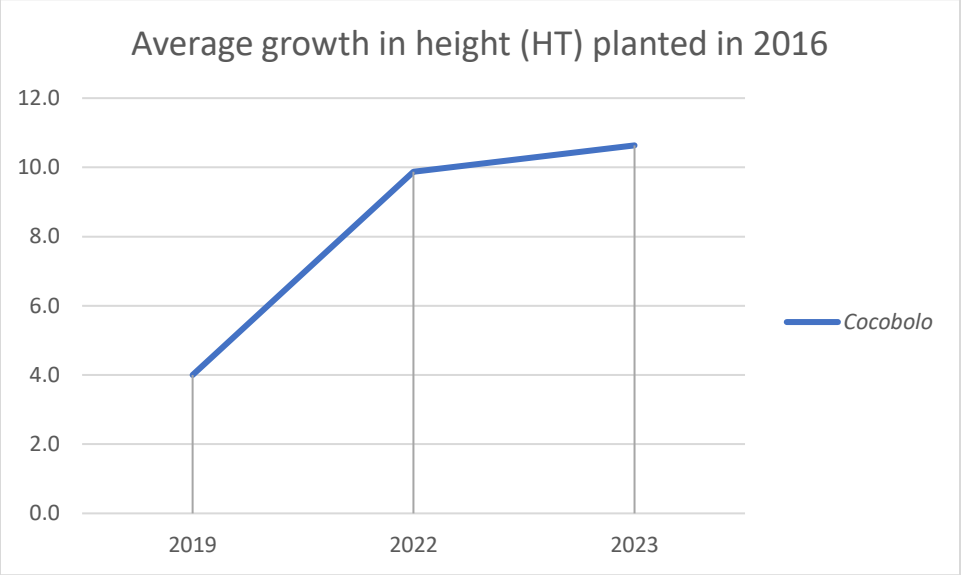
The 2016 Cocobolos plantation shows good growth in diameter and height.

Table 9. Growth data.

Darién		Growth Data: Reina					2016		
Common name	**Scientific name**	**Planting year**	**Year of measurement**	**Age**	**Average DBH (cm)**	**Average Ht (m)**	**IMA DAP**	**IMA Ht**	**AB/ha (m2/ha)**
Cocobolo	*Dalbergia retusa*	2016	2019	3	6.4	4.0	2.14	1.33	
Cocobolo	*Dalbergia retusa*	2016	abr-22	5.7	10.7	9.9	1.89	1.74	0.0897
Cocobolo	*Dalbergia retusa*	2016	abr-23	6.7	11.9	10.6	1.70	1.52	3.6908



GRAPH 1. AVERAGE GROWTH IN COCOBOLO DIAMETER 2016.



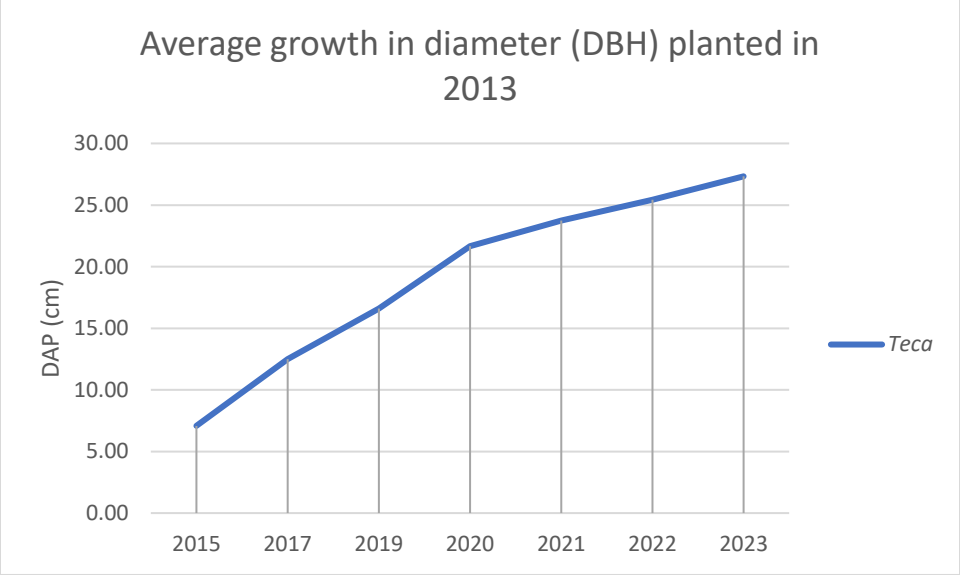
GRAPH 2. AVERAGE GROWTH IN TOTAL HEIGHT COCOBOLO 2016.

Average teak growth, planting year 2013

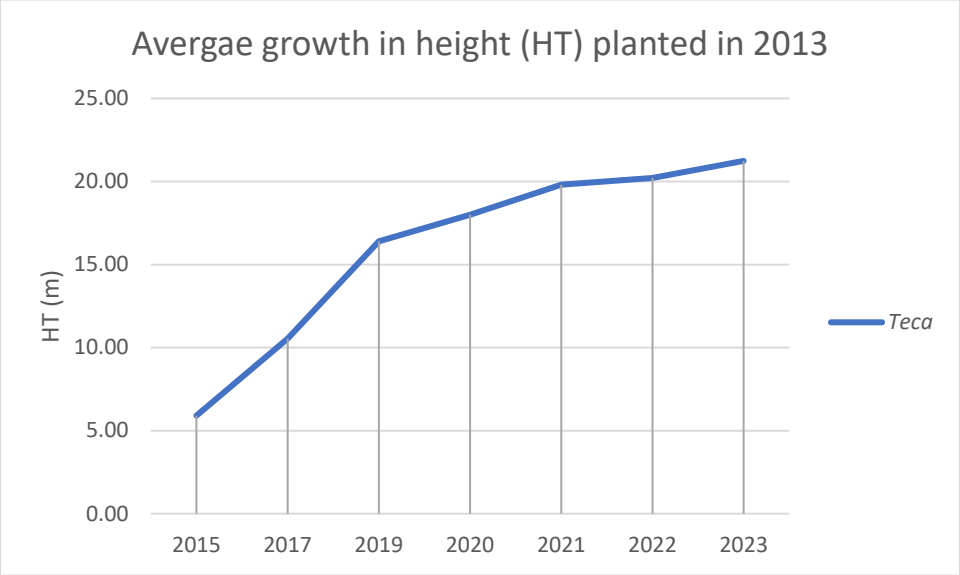
Based on the results of diameter and height growth, the teak trees for this farm show a good development. As can be seen, the mean annual increment (MAI) in diameter has a good range, as well as height.

Table 10. Growth data.

Common name	Scientific name	Planting year	Measurement year	Age	Average DBH (cm)	Average Ht (m)	IMA DAP	IMA Ht	Vol/tree (m3/tree)
Teak	*Tectona grandis*	2013	2015	2.1	7.08	5.90	3.37	2.81	0.005
Teak	*Tectona grandis*	2013	2017	3.7	12.49	10.54	3.38	2.85	0.031
Teak	*Tectona grandis*	2013	2019	5.4	16.60	16.40	3.07	3.04	0.081
Teak	*Tectona grandis*	2013	2020	6.4	21.66	18.00	3.38	2.81	0.138
Teak	*Tectona grandis*	2013	may-21	7.6	23.74	19.81	3.13	2.61	0.161
Teak	*Tectona grandis*	2013	abr-22	8.7	25.42	20.22	2.93	2.33	0.278
Teak	*Tectona grandis*	2013	mar-23	9.8	27.33	21.24	2.73	2.12	0.299



GRAPH 3. AVERAGE GROWTH IN DIAMETER TEAK 2013.



GRAPH 4. AVERAGE TOTAL HEIGHT GROWTH IN TEAK 2013.

Table 11. Executed Annual Operation Plan 2023

Farm No. 2015 - Reina																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual Planting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Fence maintenance	-	-	-	-	-	27	-	-	15	6	-	-	-	-	15	1	-	-	-	2	15	-	-	-	45	36
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Weed control - establishment of slices	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Manual phytosanitary control - Leaf-cutter ants	-	-	-	-	-	1	-	3	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	5
Manual weed control - maintenance slices	-	-	-	-	-	-	-	-	-	-	-	2	-	6	-	-	-	6	-	4	-	-	-	-	-	18
CPC- Fires-keep fire watches	25	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	10
Maintenance of internal roads	24	5	10	-	-	-	-	-	5	-	-	-	-	-	-	3	5	5	-	-	-	-	5	-	49	13

Soil conservation	29	17	-	-	-	-	-	-	-	-	10	-	-	-	15	-	15	2	15	-	15	-	10	-	109	19
Manual-cleaning weed control	-	-	-	29	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47
Weed control-strip cleaning	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Thinning	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
CPC Fire-Fire Surveillance	5	-	5	-	5	2	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	7
High pruning	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Foliar fertilization	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Formation pruning	-	-	-	-	-	-	-	17	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	37
Active Forestry Inventory (Regeneration)	-	-	-	-	-	-	-	4	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
Marking for Thinning	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Manual Weed Control - Bejuco Cutting	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	9	-	7	-	-	-	-	-	26
Weed control - Chemical-Backpack Pump	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Marking Staking	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Trainings	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Granular fertilization	-	-	-	-	-	-	-	-	-	-	-	10	-	8	-	3	-	-	-	-	-	-	-	-	-	21
Replanted	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	9
Field Irrigation	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	3
Sendero	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	3	-	-	-	-	-	8
GPS survey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Unsucking	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Grand Total	**83**	**32**	**15**	**47**	**5**	**54**	**-**	**49**	**20**	**53**	**10**	**34**	**-**	**26**	**30**	**14**	**20**	**26**	**15**	**16**	**30**	**-**	**15**	**-**	**243**	**351**

5.2. Claritas Unit

The unification between the farms that cover the Claritas and Agua Fria Unit is carried out with the aim of facilitating the grouped management of all the farms under the charge of the engineer of the area. Likewise, the decision was made to include the farms in a single Unit (Claritas Unit) due to the proximity they present to each other, geographically.

Description of development

In general, growth has been within the expected range and the plantation has developed well. Despite a higher than usual mortality, as a result of the "El Niño" phenomenon. In the area affected by fire on the Clarita 1 farm in 2022, the Cocobolo and Teak resprouts have been managed and have shown good growth. The Cocobolo was managed at the apex, guaranteeing strong and straight growth.

Cleaning and maintenance activities were affected in the last quarter of the year due to budget cuts and staff reductions. As a result, it was not possible to implement all the planned activities and some were postponed until the beginning of 2024.

Pest attacks, diseases, or fire occurrences

No fires were reported in the farms during the period 2023.

In several farms we have species belonging to the Meliaceae family and these are commonly attacked by the Meliaceae borer, Hypsipyla grandella, which attacks the tender bud or apex of the tree, which is managed by manually removing it by cutting it with scissors, transversely, eliminating the pest and cutting it at the first regrowth. The attacks have been mainly on the bitter cedar species (Cedrela odorata). The Hypsipyla has been managed manually, and various chemical and organic products (insecticides, pheromones, traps) have been tested to see what measures can be taken to reduce future attacks.

Planting Mortality 2022

Table 12. Mortality of planting.

MORTALITY TABLE FOR THE YEAR OF PLANTING 2022 - CLARITA					
FARM	**N° OF FARM**	**Species**	**Number of trees planted**	**Number of dead trees**	**% mortality**
Tello #1	3905	Teak- *Tectona grandis*	3622	365	10%
		Cocobolo- *Dalbergia retusa*	6162	263	4%
		Amarillo-*Terminalia amazonia*	2847	206	7%
		Almendro-*Dipteryx oleifera*	5084	284	6%
		Roble- *Tabebuia rosea*	1614	486	30%
		Cedro- *Cedrela odorata*	2202	106	5%
		Mixta	1533	1533	100%
La Esperanza	1962/ 30359110/ 30358742/ 30359029/ 30359853/ 30358613	Teak- *Tectona grandis*	13756	582	4%
		Almendro - Dipteryx panamensis	5020	787	16%
		Amarillo-*Terminalia amazonia*	8341	68	1%
		Roble- *Tabebuia rosea*	12334	736	6%
		Cocobolo- *Dalbergia retusa*	12539	77	1%
		Cedro- *Cedrela odorata*	2384	249	10%
		Espave- *Anacardium excelsum*	2584	2584	100%
		Caoba- *Swietenia macrophylla*	3129	118	4%
		Cativo- *Prioria copaifera*	6565	499	8%
		Guayacan Morado- *Tabebuia impetiginosa*	2402	126	5%
		Laurel- *Cordia alliodora*	2586	14	1%
Espave	960	Almendro - Dipteryx panamensis	4869	316	6%
		Amarillo-*Terminalia amazonia*	140	6	4%
		Roble- *Tabebuia rosea*	350	16	5%
		Cocobolo- *Dalbergia retusa*	12960	187	1%
		Caoba- *Swietenia macrophylla*	460	26	6%
		Cedro- *Cedrela odorata*	3667	16	0%
		Balsamo- *Myroxylon balsamum*	775	56	7%
		Quira- *Platymiscium pinnatum*	960	17	2%
		Amarillo Guayaquil-*Centrolobium yavizanum*	170	10	6%
Tello #3	3123	Teak- *Tectona grandis*	2831	424	15%
		Cocobolo- *Dalbergia retusa*	1944	106	5%
		Amarillo-*Terminalia amazonia*	1879	61	3%
		Roble- *Tabebuia rosea*	1930	424	22%

		Caoba- *Swietenia macrophylla*	900	151	17%
Raul Espinosa	7884	Teak- *Tectona grandis*	2409	516	21%
		Cocobolo- *Dalbergia retusa*	7586	245	3%
		Amarillo-*Terminalia amazonia*	1296	54	4%
		Roble- *Tabebuia rosea*	1266	76	6%
		Cedro- *Cedrela odorata*	1600	125	8%
		Caoba- *Swietenia macrophylla*	2307	105	5%
		Espave- *Anacardium excelsum*	650	400	62%
		Cativo- *Prioria copaifera*	764	678	89%
Genarino	2627	Teak- *Tectona grandis*	996	145	15%
		Amarillo-*Terminalia amazonia*	1989	364	18%
		Cocobolo- *Dalbergia retusa*	4520	120	3%
Gindi	886	Teak- *Tectona grandis*	2058	197	10%
		Cocobolo- *Dalbergia retusa*	1822	128	7%
		Amarillo-*Terminalia amazonia*	2525	65	3%
		Almendro - Dipteryx panamensis	950	66	7%
		Roble- *Tabebuia rosea*	375	232	62%
		Cedro- *Cedrela odorata*	2294	1157	50%
		Guasimo- *Guazuma ulmifolia*	868	149	17%
		Mora- Maclura tinctorea	363	64	18%
		Caoba- *Swietenia macrophylla*	732	5	1%
David Fernandez	0400/ 0401/ 0371	Cedro- *Cedrela odorata*	1882	203	11%
		Caoba- *Swietenia macrophylla*	1879	123	7%
		Cocobolo- *Dalbergia retusa*	5923	345	6%
		Almendro - Dipteryx panamensis	1009	200	20%
		Balsamo- *Myroxylon balsamum*	1308	97	7%
		Berba- *Brosimum alicastrum*	314	250	80%
		Cativo- *Prioria copaifera*	833	265	32%
Tiofilo	6087	Teak- *Tectona grandis*	3901	353	9%
		Caoba- *Swietenia macrophylla*	808	145	18%
		Amarillo-*Terminalia amazonia*	5385	63	1%
		Roble- *Tabebuia rosea*	3150	894	28%
		Cocobolo- *Dalbergia retusa*	5636	230	4%
		Cedro- *Cedrela odorata*	1124	863	77%
		Almendro - Dipteryx panamensis	4500	2264	50%
		Guayacan Morado- *Tabebuia impetiginosa*	1188	14	1%
Geronima Castro	1092	Cedro- *Cedrela odorata*	495	166	34%
		Caoba- *Swietenia macrophylla*	553	255	46%
		Cocobolo- *Dalbergia retusa*	3008	268	9%

		Amarillo-*Terminalia amazonia*	2580	61	2%
		Guasimo- *Guazuma ulmifolia*	630	40	6%
		Berba- *Brosimum alicastrum*	278	102	37%
Joaquin Hernandez	7827	Teak- *Tectona grandis*	5946	191	3%
		Cocobolo- *Dalbergia retusa*	1728	97	6%
		Amarillo-*Terminalia amazonia*	1585	145	9%
Consuegra	4869	Cocobolo- *Dalbergia retusa*	3667	298	8%
		Amarillo-*Terminalia amazonia*	2092	314	15%
La 15	8047	Teak- *Tectona grandis*	1681	107	6%
		Cocobolo- *Dalbergia retusa*	2380	221	9%
		Amarillo-*Terminalia amazonia*	1909	78	4%
		Laurel- *Cordia alliodora*	432	23	5%
		Guayacan Morado- *Tabebuia impetiginosa*	780	134	17%
		Total, average	**234493**	**24599**	**10%**

All dead trees of the different forest species were replaced. A total of 24,599 trees were replanted, which corresponds to a mortality rate of 10%. Especially the species Roble, Berbá, Almendro, Cativo and Espavé showed very high mortality, with low resilience to water stress and prolonged dry season.

5.2.1. Farm No. 280254 La Ponderosa

Reforestation summary

Table 13. Categorization of reforested areas

Farm 280254 - La Ponderosa						
Species planted		Inicial dist. (m)	Tree/ha.	Year planted		Reforested area/ species (ha)
Common name	Scientific name			2020	2021	
Almendro de montaña	Dipteryx panamensis	3x4	833	0.02		0.02
Caoba	Swietenia macrophylla	3x4	833		0.87	0.87
Cedro Amargo	Cedrela odorata	3x4	833	1.05		1.05
Cocobolo	Dalbergia retusa	3x4	833		5.05	5.05
Cocobolo, Cedro amargo y Caoba	Dalbergia retusa, Cedrela odorata y Swietenia macrophylla	3x4	833	4.80		4.80
Roble	Tabebuia rosea	3x4	833	2.25		2.25
Ron Ron	Astronium graveolens	3x4	833	0.29		0.29
Teak	Tectona grandis	4x5	500		6.50	6.50
Reforested area/ species				**8.41**	**12.42**	**20.83**
Protection area						1.82
Area of stream						3.61
Fire break						0.46
Total surface area						**26.72**

Farm map

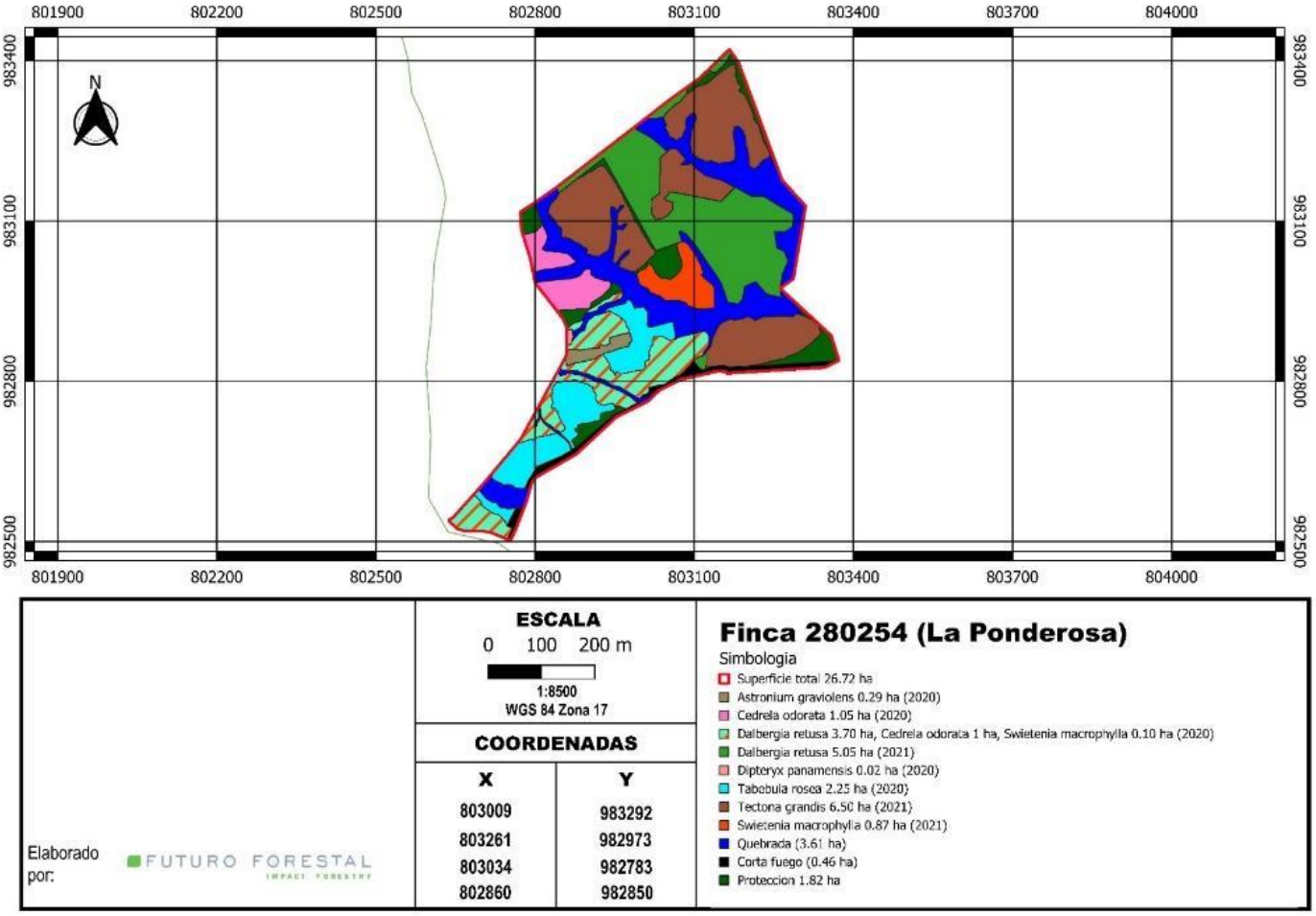


FIGURE 10. MAP OF LA PONDEROSA FARM (NO. 280254).

Monitoring and growth data

Average growth of planted natives in 2020

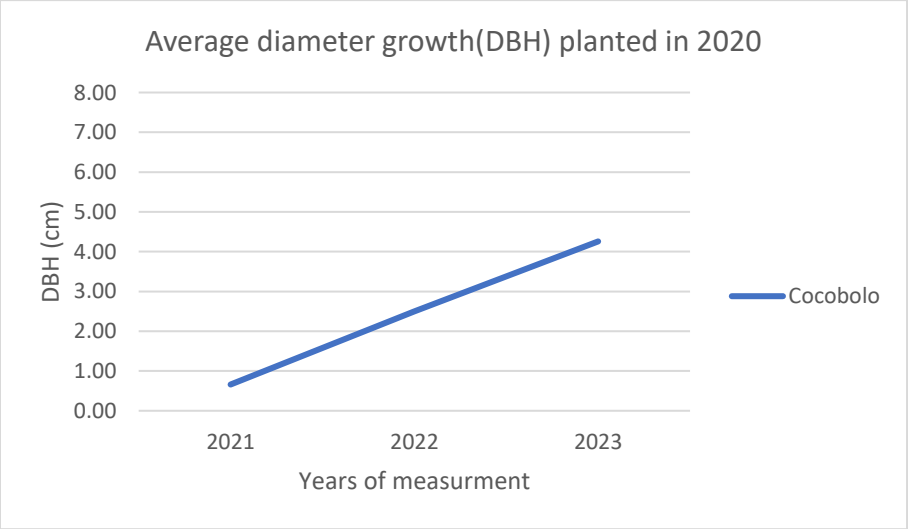
Dalbergia retusa

Table 14. Reforested area categorized.

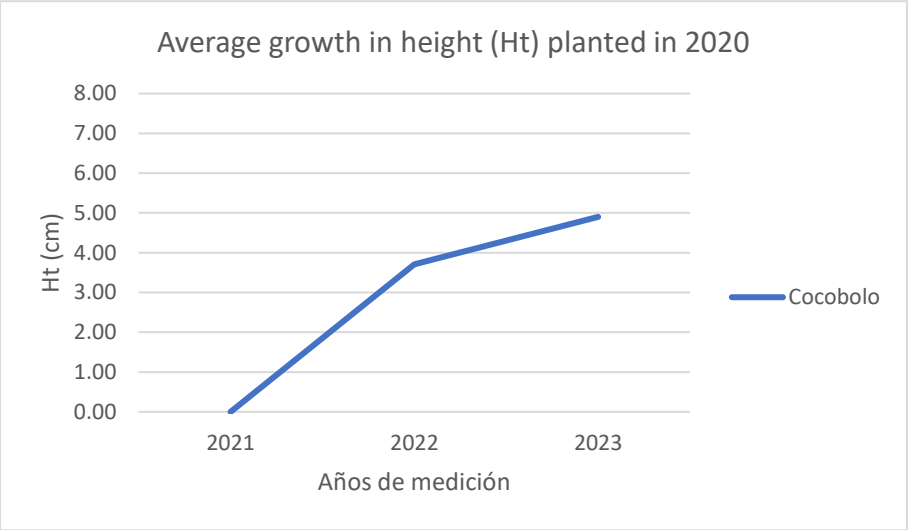
Darién		Growth information: La Ponderosa						2020		
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**	**AB (m2/ha)**
Cocobolo	*Dalbergia retusa*	2020	abr-21	0.7	-	0.66	NA	0.99	-	-
Cocobolo	*Dalbergia retusa*	2020	abr-22	1.7	393	2.49	3.71	1.50	2.22	-
Cocobolo	*Dalbergia retusa*	2020	abr-23	2.7	387	4.26	4.90	1.42	1.63	0.5756

Optimal growth is observed in the species, with an average annual increase greater than 1.0 cm of DBH, in its juvenile stage, this development is expected for the next 15 to 20 years, then the AMI of DBH will range between 0.8 to 1.0 cm.

There are reports in 30-year-old plantations, located in the botanical garden of Lancetilla (Honduras), with growth ranging from 0.75 cm to 0.90 cm AMI at DBH.



GRAPH 4. AVERAGE GROWTH IN DIAMETER COCOBOLO 2020.



GRAPH 5. AVERAGE GROWTH IN HEIGHT COCOBOLO 2020.

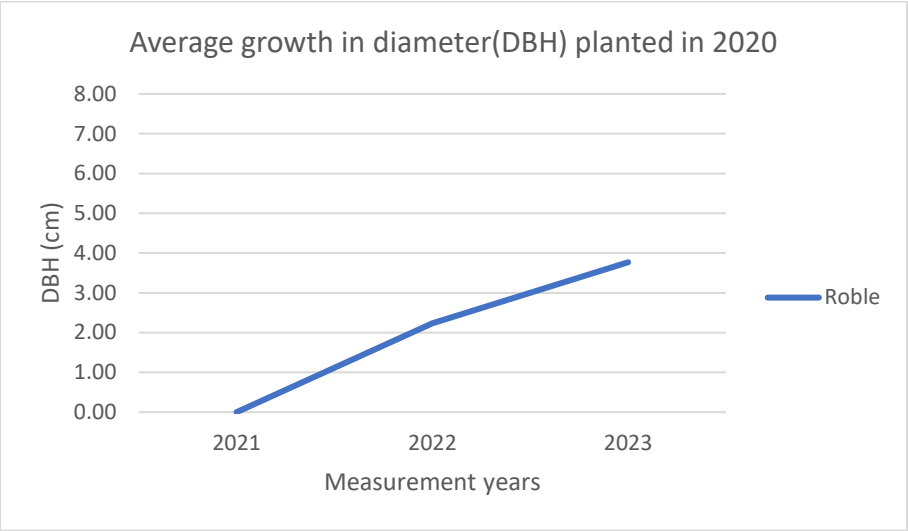
Tabebuia rosea

Table 15. Growth data.

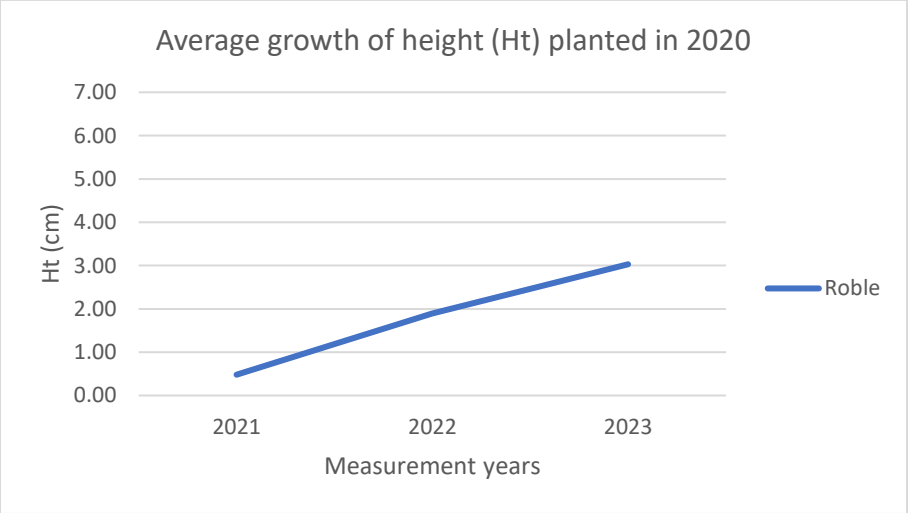
Darién		Growth data: La Ponderosa						2020		
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**	**AB (m2/ha)**
Roble	*Tabebuia rosea*	2020	abr-21	0.7	-	NA	0.48	-	0.72	-
Roble	*Tabebuia rosea*	2020	abr-22	1.7	120	2.23	1.89	1.34	1.14	-
Roble	*Tabebuia rosea*	2020	abr-23	2.7	120	3.77	3.03	1.26	1.01	0.1326

In a study on diameter growth and phenology of oak in Costa Grande, Guerrero, Mexico 2016, the growth of this species was observed over a continuous period of 17 months, taking bimonthly measurements. They determined its growth in 1.0 cm of annual DBH and concluded that the species grows based on the disposition of rainfall, that in the summer it enters a state of dormancy in growth.

From the results obtained during the monitoring period at La Ponderosa farm, we can determine that the growth of this species is within optimal ranges.



GRAPH 6. AVERAGE GROWTH IN DIAMETER ROBLE.



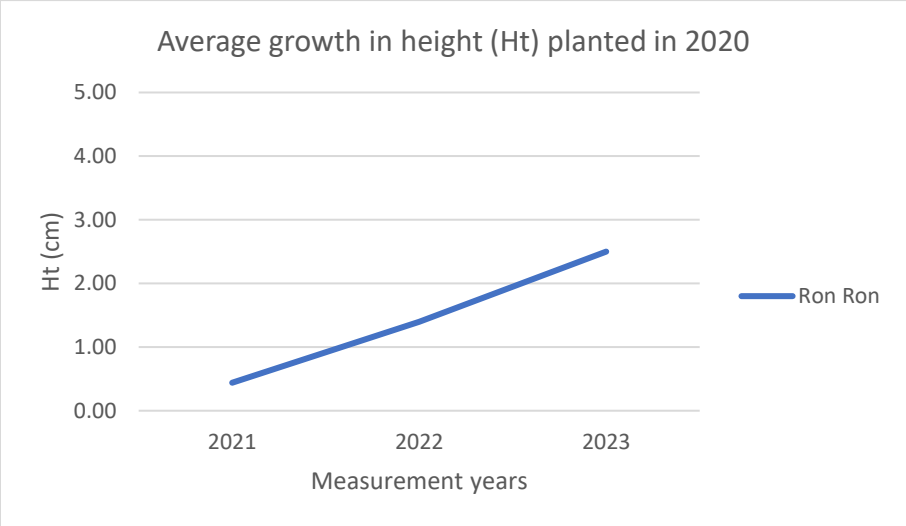
GRAPH 7. AVERAGE GROWTH OF HEIGHT ROBLE 2020.

Astronium graveolens

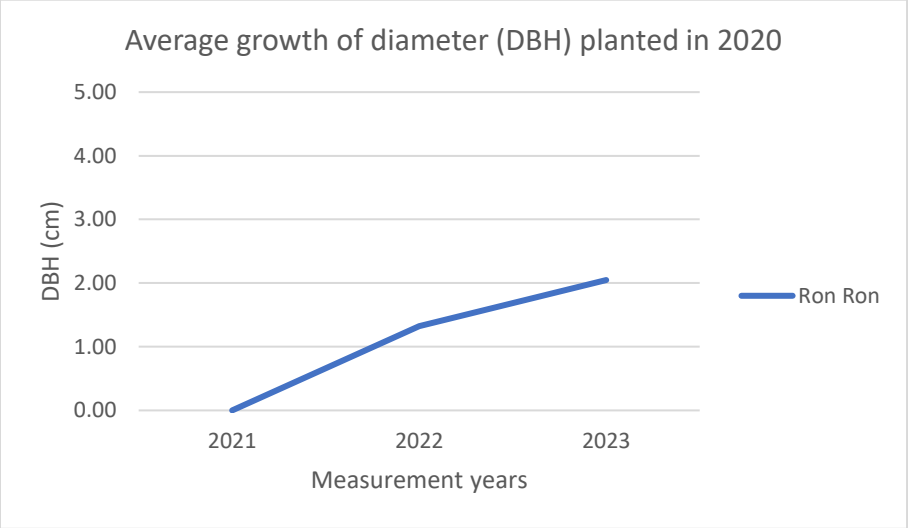
Table 16. Growth data.

Darién		Growth Data: La Ponderosa								2020
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**	**AB (m2/ha)**
Ron Ron	*Astronium graveolens*	2020	abr-21	0.7	-	NA	0.44	-	0.66	-
Ron Ron	*Astronium graveolens*	2020	abr-22	1.7	220	1.33	1.40	0.80	0.84	-
Ron Ron	*Astronium graveolens*	2020	abr-23	2.7	153	2.05	2.50	0.68	0.83	0.0543

It maintains a good growth in diameter and height, in the optimum range of 1.0 cm of AMI.



GRAPH 8. AVERAGE GROWTH IN HEIGHT RON RON 2020.



GRAPH 9. AVERAGE GROWTH IN DIAMETER RON RON 2020.

Average growth of planted natives in the year 2021

Table 17. Growth data

Darién		Datos de Crecimiento: La Ponderosa						2021		
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**	**AB (m2/ha)**
Cedro amargo	*Cedrela odorata*	2021	abr-23	1.7	270	2.03	1.14	1.02	0.57	0.0285
Cocobolo	*Dalbergia retusa*	2021	abr-23	1.7	420	1.85	2.40	0.92	1.20	0.1012
Almendro	*Dipteryx panamensis*	2021	abr-23	1.7	90	1.80	0.81	0.90	0.40	0.0017

Cedrela odorata has a relatively low mean annual height when compared to other species, the reason being the frequency of attacks by H. grandella in the plantations, even with the silvicultural treatments given to the species.

Dipteryx panamensis, although slow growing, is typical of this species, which has a pivotal root system and few absorbing roots, which limits its rapid exponential growth compared to other species.

Average growth of planted Teak in the year 2021

Table 18. Growth data.

Darién		Growth Data: La Ponderosa						2021	
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**
Teak	*Tectona grandis*	2021	abr-23	1.7	420	4.22	4.09	2.53	2.45

5.2.2. Farm No. 235655 La Ponderosa

Reforestation Summary

Table 19. Categorization of reforested areas.

Farm No. 235655 - La Ponderosa					
Planted species		**Initial dist. (m)**	**Arb/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2021	
Cedro Amargo	*Cedrela odorata*	3x4	833	0.63	0.63
Cocobolo	*Dalbergia retusa*	3x4	833	5.38	5.38
Guayacán Morado	*Tabebuia impetiginosa*	4x5	833	1.38	1.38
Roble	*Tabebuia rosea*	3x4	833	1.76	1.76
Ron Ron	*Astronium graveolens*	3x4	833	1.51	1.51
Total reforested				**10.66**	**10.66**
Protection area					0.27
Area of the stream					0.70
Infrastructure-Camp sites-Firebreak					1.54
Total Area					**13.17**

Map of the farm

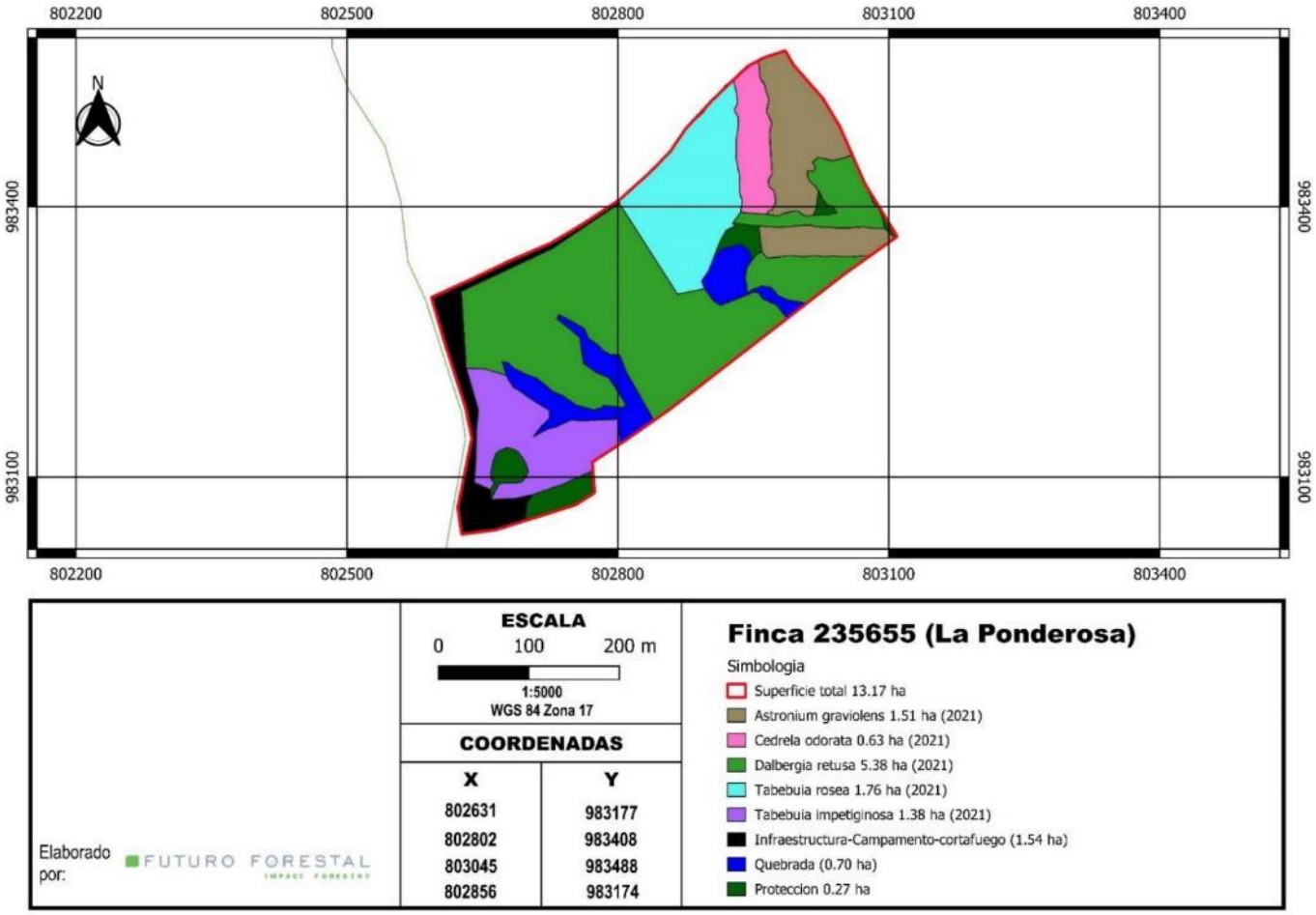


FIGURE 11. MAP OF LA PONDEROSA FARM (NO. 235655).

Table 20. Executed Annual Operation Plan 2023

Farm No. 235655 - La Ponderosa																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**Agugust**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed Control - Strip Cleaning	-	-	-	7	-	9	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	27
Formation pruning	-	-	1	-	-	-	-	-	1	-	-	-	-	8	1	-	-	-	-	-	1	-	-	-	5	8
Replanted	-	-	-	-	-	-	-	-	-	-	-	-	-	31	-	-	-	-	-	-	-	-	-	-	-	31
Organic mulch	-	-	-	-	23	-	-	-	-	-	23	21	-	-	-	-	23	-	-	-	-	-	23	-	92	21
Phytosanitary-chemical control - *Hypsipyla grandella*	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Manual phytosanitary control - *Hypsipyla grandella*	0	11	0	-	0	3	0	-	0	-	0	1	0	5	0	5	0	2	0	2	0	-	0	-	1	29
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Manual phytosanitary control-worms	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Manual phytosanitary control - Leaf-cutter ants	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Manual Weed Control - Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5
Supervision	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Manual-cleaning weed control	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Manual weed control-maintenance of organic mulch	-	-	-	41	-	31	-	-	-	-	-	8	-	-	-	-	-	55	-	16	-	-	-	-	-	151
Foliar fertilization	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plant straightening	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2
Grand Total	**0**	**15**	**1**	**49**	**23**	**64**	**0**	**-**	**1**	**17**	**23**	**31**	**0**	**46**	**1**	**16**	**23**	**62**	**0**	**18**	**1**	**-**	**23**	**-**	**98**	**318**

5.2.3. Farm No. 218957 La Ponderosa

Reforestation summary

Table 21. Categorization of reforested areas.

Farm No. 218957 - La Ponderosa						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2020	2021	
Almendro de montaña	*Dipteryx panamensis*	3x4	833	0.05		0.05
Cedro Amargo	*Cedrela odorata*	3x4	833		3.75	3.75
Cocobolo, Cedro amargo *y* Caoba	*Dalbergia retusa, Cedrela odorata* y *Swietenia macrophylla*	3x4	833	1.33		1.33
Roble	*Tabebuia rosea*	3x4	833	1.25	0.46	1.71
Total reforested				**2.63**	**4.21**	**6.84**
Protection area						0.79
Stream area						1.30
Total Surface Area						**8.93**

Map of the Farm

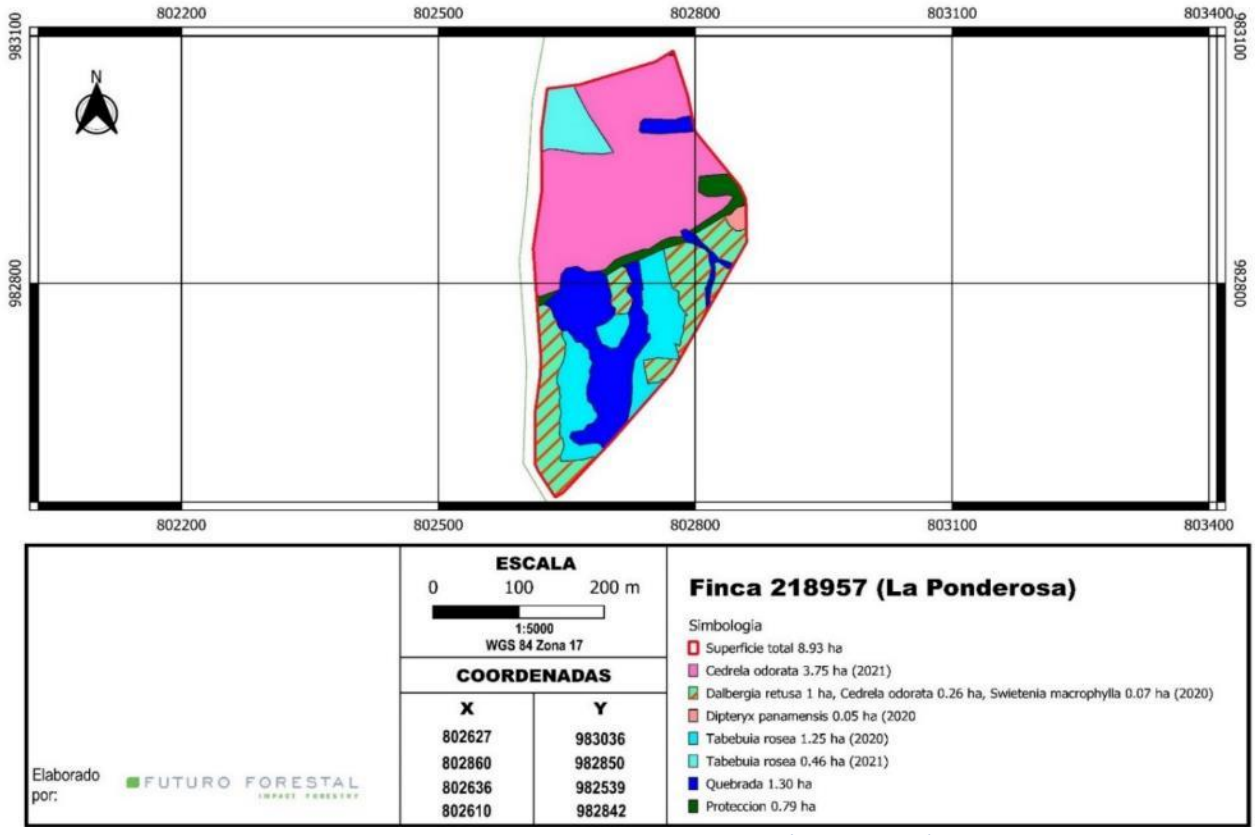


Figure 12. Map of the Finca La Ponderosa (No. 218957).

Table 22. Executed Annual Operation Plan 2023

Farm No. 218957 - La Ponderosa																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed Control - Strip Cleaning	-	-	-	-	-	7	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	10
Formation pruning	-	-	2	-	-	3	-	-	2	1	-	2	-	-	-	-	2	-	-	-	-	-	-	-	5	6
Replanted	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Organic mulch	-	-	10	-	9	-	-	-	10	6	9	8	-	-	10	-	9	-	-	-	10	-	9	-	74	14
Phytosanitary-chemical control - *Hypsipyla grandella*	-	-	-	4	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Manual phytosanitary control - *Hypsipyla grandella*	1	-	1	7	1	9	1	14	1	4	1	8	1	6	1	8	1	7	1	10	1	-	1	-	16	73
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Manual phytosanitary control-worms	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Manual Weed Control - Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Supervision	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Manual-cleaning weed control	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
Manual weed control-maintenance of organic mulch	-	-	-	25	-	23	-	-	-	13	-	5	-	-	-	-	-	9	-	-	-	-	-	-	-	75
Foliar fertilization	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plant straightening	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Manual phytosanitary control -leaf-cutter ants	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Grand Total	**1**	**9**	**13**	**38**	**10**	**67**	**1**	**14**	**13**	**31**	**10**	**23**	**1**	**11**	**11**	**8**	**12**	**17**	**1**	**10**	**11**	**-**	**10**	**-**	**95**	**228**

5.2.4. Farm La Ponderosa

Reforestation summary

Table 1. Categorization of reforested areas

Farm La Ponderosa					
Planted species		**Initial dist. (m)**	**Tree/ha.**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			**2021**	
Cocobolo	*Dalbergia retusa*	3x4	833	1.83	1.83
Total reforested				**1.83**	**1.83**
Protecion area					0.65
Total Surface area					**2.48**

Map of the farm

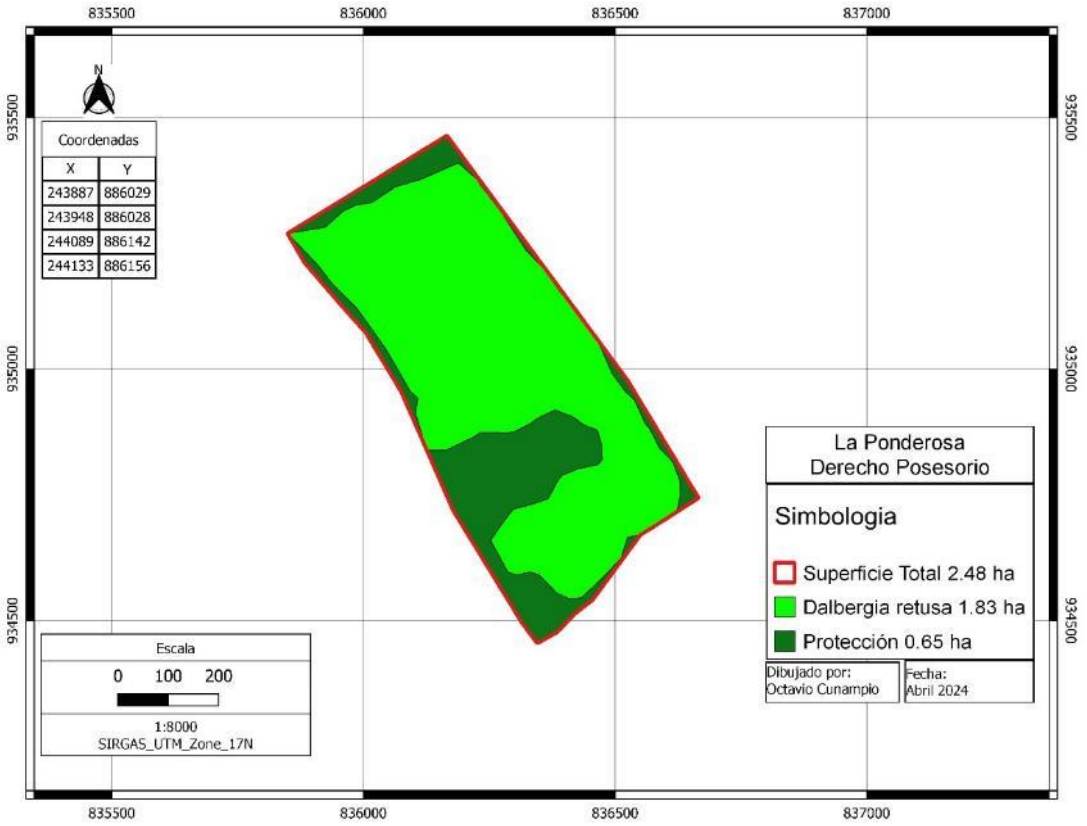


Figure 13. Map of the farm La Ponderosa.

5.2.5. Farm No. 30123319 Claritas 1

Reforestation summary

Table 2. Reforested areas by category.

Farm No. 30123319 - Claritas 1					
Planted species		**Initial dist. (m)**	**Arb/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2020	
Cocobolo	*Dalbergia retusa*	3x4	833	14.80	14.80
Cedro Amargo	*Cedrela odorata*	3x4	833	4.60	4.60
Teak	*Tectona grandis*	4x5	500	5.95	5.95
Bálsamo	*Myroxylon balsamum*	3x5	834	0.54	0.54
Ron Ron	*Astronium graveolens*	3x4	833	6.13	6.13
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	3.11	3.11
Enrichment		5x5	400	4.12	4.12
Total reforested				**39.25**	**39.25**
Protection area					2.66
Stream area					0.80
Artificial lake					0.13
Infrastructure					0.16
Total Surface Area					**43.00**

Map of the Farm

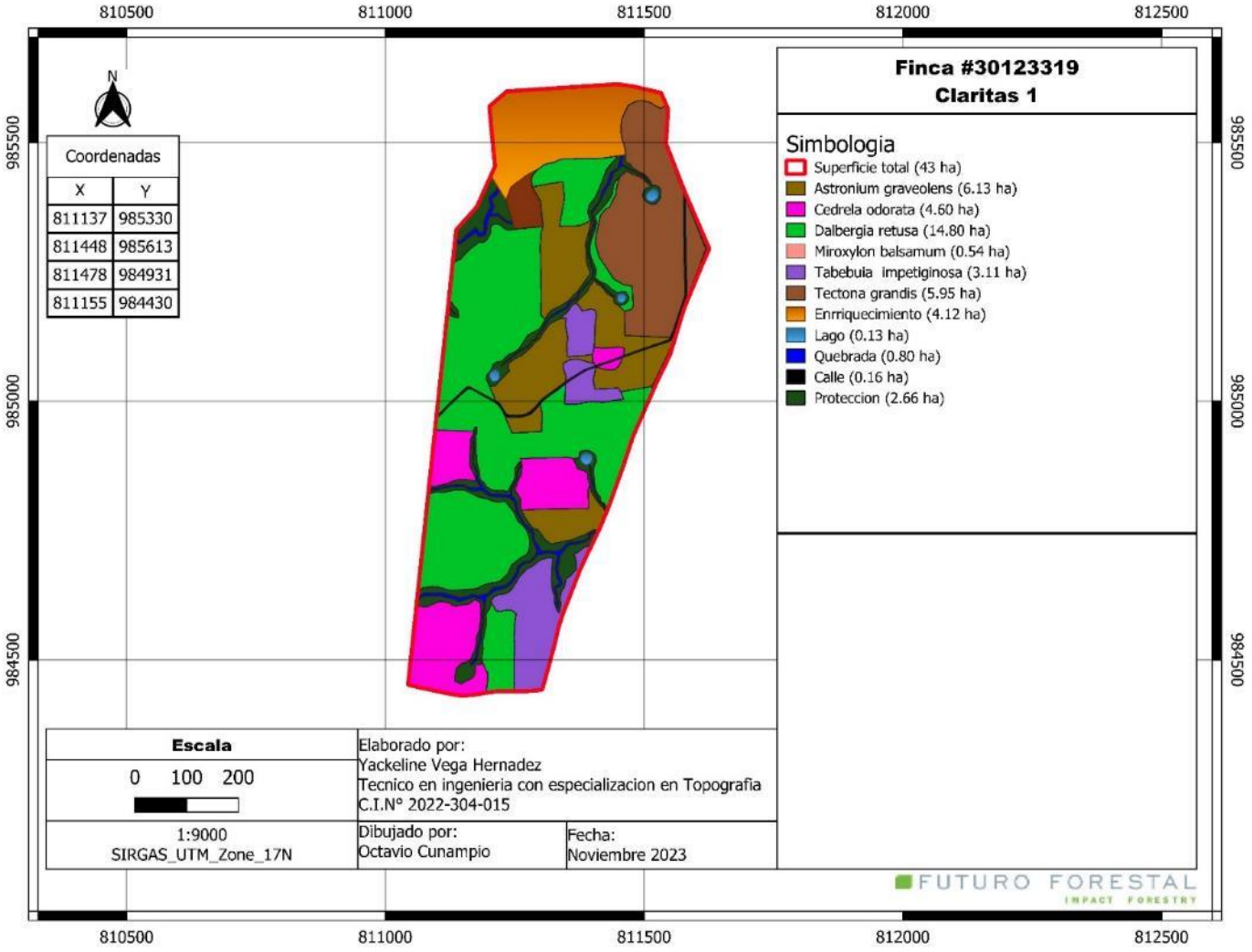


FIGURE 14. MAP OF CLARITAS FARM (NO. 30123319).

Monitoring and growth data

Table 3. Average growth of planted natives in year 2021

Darién		Growth data: Clarita 1						2021		
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**	**AB (m2/ha)**
Cocobolo	*Dalbergia retusa*	2021	23-abr	1.7	308	2.71	3.41	1.35	1.71	0.195
Cedro amargo	*Cedrela odorata*	2021	23-abr	1.7	193	0	0.71	0	0.36	0
Guayacán morado	*Tabebuia impetiginosa*	2021	23-abr	1.7	30	1.51	2	0.75	1	0.006
Ron Ron	*Astronium graveolens*	2021	23-abr	1.7	73	0	1.05	0	0.53	0

Since these were young plantations, only the total height was taken into account for the calculation of volume. In the case of the cedars that do not present DBH and their height growth is very low, this is due to the intense attack of *Hypsipyla grandella*, since this attacks the apical bud, which is where the height growth of the plant is favored, while the Ron Ron is a dense wood species, which makes its growth slower in comparison with other species such as the cocobolo, which has a faster growth in height and diameter.

Table 4. Average growth of planted Teak in year 2021

Darién		Growth data: Clarita 1						2021	
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**
Teak	*Tectona grandis*	2021	23-abr	1.7	340	3.46	3.3	2.08	1.98

This plantation was almost completely damaged by the fire, which caused a delay in growth in both height and diameter, and over the months the teak species is recovering satisfactorily from the fire. Post-fire resprouts have been managed and have shown good growth to date.

Table 5. Executed Annual Operation Plan 2023

Farm No. 30123319 - Claritas 1																										
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Establishment of fire breaks	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
Tractor driver	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
CPC Fire-Fire Surveillance	-	-	-	1	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Fence maintenance	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	6
Manual weed control-maintenance mulch	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Control of slice-chemical for slice	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Supervision	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Chemical weed control-chemical slice	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48
Chainsaw operator	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Unforeseen	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Manual weed control - cleaning	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Organic mulch	-	-	74	-	-	43	-	21	74	62	-	-	-	-	73	-	-	-	-	-	73	-	-	-	294	126
Manual weed control – maintenance of organic mulch and slice	-	3	-	-	-	62	-	-	-	34	-	-	-	2	-	15	-	-	-	-	-	-	-	-	-	116
Manual phytosanitary	1	7	1	4	1	11	1	10	1	12	1	-	1	5	1	2	1	-	1	1	1	-	1	-	9	52

control - *Hypsipyla grandella*																										
Manual phytosanitary control - Leaf-cutter ants	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Phytosanitary control - Chemical- *Hypsipyla grandella*	-	-	-	-	-	4	-	4	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	19
Formation pruning	-	-	3	-	-	-	-	-	3	8	-	3	-	2	3	-	-	-	-	-	-	-	-	-	10	13
Manual Weed Control - Liana Cutting	-	-	-	-	-	2	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	7
Weed control - chemical - Knapsack Pump	-	-	-	-	-	-	-	-	59	80	-	-	-	-	59	-	-	-	-	-	59	-	-	-	176	80
Chemical- Motor Pump Control	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Weed control - mechanical - Güira	-	19	-	-	-	-	-	-	-	-	-	5	-	5	-	-	-	-	-	-	-	-	-	-	-	29
Replanted	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	30	-	2	-	-	-	-	-	-	-	33
Weed Control - Strip Cleaning	-	-	4	-	-	13	-	-	-	-	4	-	-	-	-	-	4	45	-	20	-	25	-	-	12	103
Grand Total	**1**	**124**	**82**	**5**	**1**	**152**	**1**	**35**	**136**	**207.38**	**5**	**11**	**1**	**15**	**136**	**51**	**5**	**58**	**1**	**21**	**133**	**25**	**1**	**-**	**500**	**704.38**

5.2.6. Farm No. 30124630 Claritas 1

Reforestation summary

Table 6. Reforested area by category.

Farm No. 30124630 - Claritas 1					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2020	
Cedro Amargo	*Cedrela odorata*	3x4	833	8.29	8.29
Cocobolo	*Dalbergia retusa*	3x4	833	14.31	14.31
Guayabo Charco	*Terminalia oblonga*	3x5	834	0.30	0.30
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	0.47	0.47
Roble	*Tabebuia rosea*	3x4	833	0.42	0.42
Teak	*Tectona grandis*	4x5	500	9.70	9.70
Total reforested				**33.49**	**33.49**
Area for planting					0.33
Protection area					4.06
Stream area					0.73
Artificial lake					0.19
Infrastructure					1.20
Total Surface Area					**40.00**

Map of the Farm

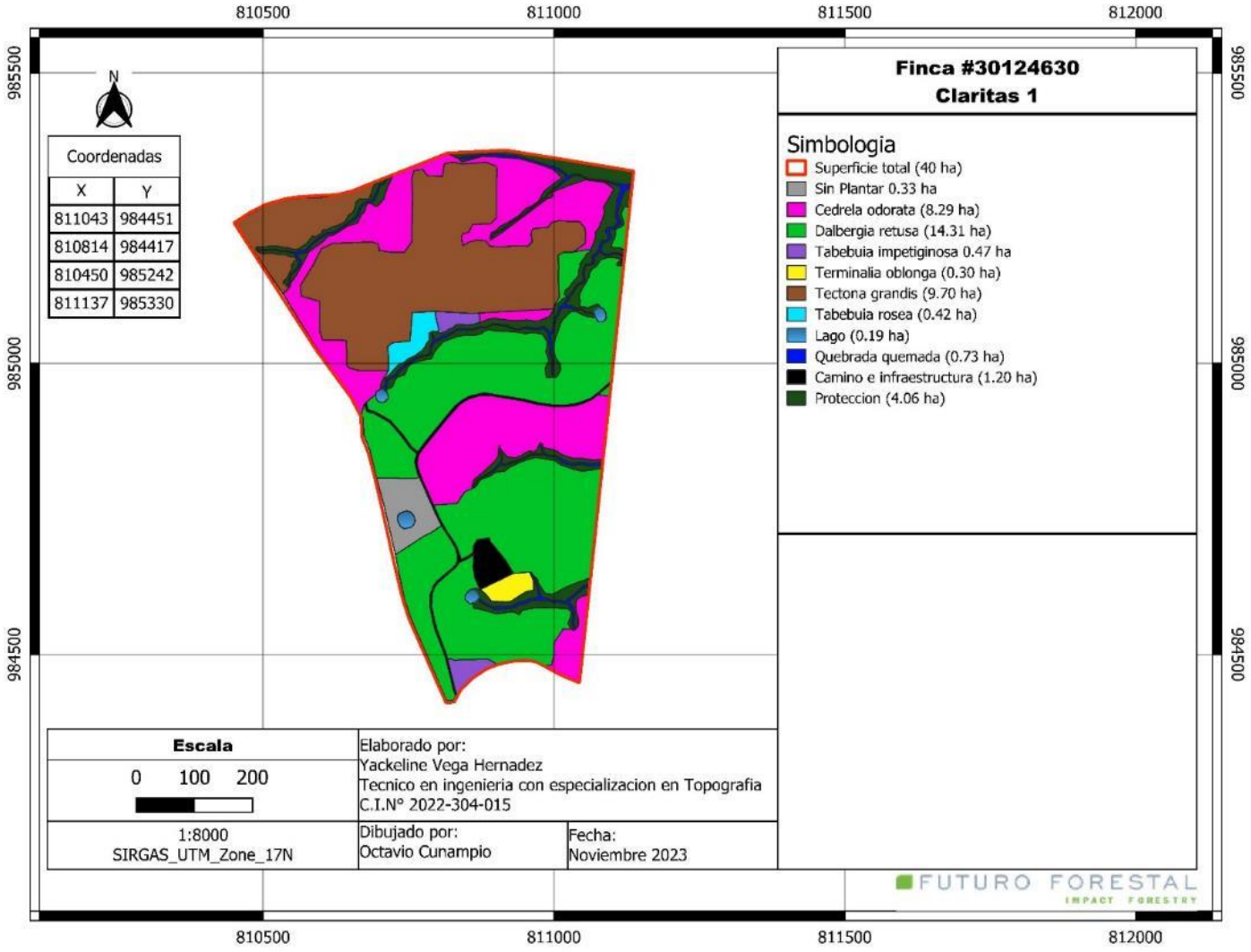


FIGURE 15. MAP OF CLARITAS 1 FARM (NO. 30124630).

Table 7. Executed Annual Operation Plan 2023

Farm No. 30123319 - Claritas 1																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Phytosanitary-chemical control - *Hypsipyla grandella*	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Establish fire breaks	-	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Tractor driver	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
CPC- Fires-maintaining fire breaks	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Cleaning and maintenance of infrastructure	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Manual weed control - liana cutting	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Weed control - mechanical - Tractor	2	-	-	-	-	-	-	5	2	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	6	5
Monitoring	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	4
CPC Fire-Fire Surveillance	-	-	-	2	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Fence maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Disassembling of the hut	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4
Grand Total	9	-	107	-	32	-	9	-	337	-	88	-	9	-	335	-	33	-	9	-	334	-	4	-	1,306	-
	12	**31.00**	**107**	**4.00**	**32**	**4.00**	**9**	**7.00**	**339**	**6.00**	**88**	**2.00**	**9**	**-**	**336**	**6.00**	**34**	**-**	**9**	**-**	**334**	**-**	**4**	**-**	**1,312**	**60.00**

5.2.7. Farm No. 218060 Claritas 2

Reforestation summary

Table 8. Reforested area by category.

Farm No. 218060 - Claritas 2						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2021	2023	
Cocobolo	*Dalbergia retusa*	3x4	833	7.42		7.42
Cedro Amargo	*Cedrela odorata*	3x4	833	2.57		2.57
Roble	*Tabebuia rosea*	3x4	833	1.49		1.49
Quira	*Platymiscium pinnatum*	3x5	834	0.61		0.61
Ron Ron	*Astronium graveolens*	3x4	833	0.81		0.81
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	0.43		0.43
Roble	*Tabebuia rosea*	3x4	833		0.09	0.09
Total reforested				**13.33**	**0.09**	**13.42**
Protection						2.59
Artificial Lake						0.11
Stream area						0.35
Fire Break						0.83
Total Surface Area						**17.30**

Farm Map

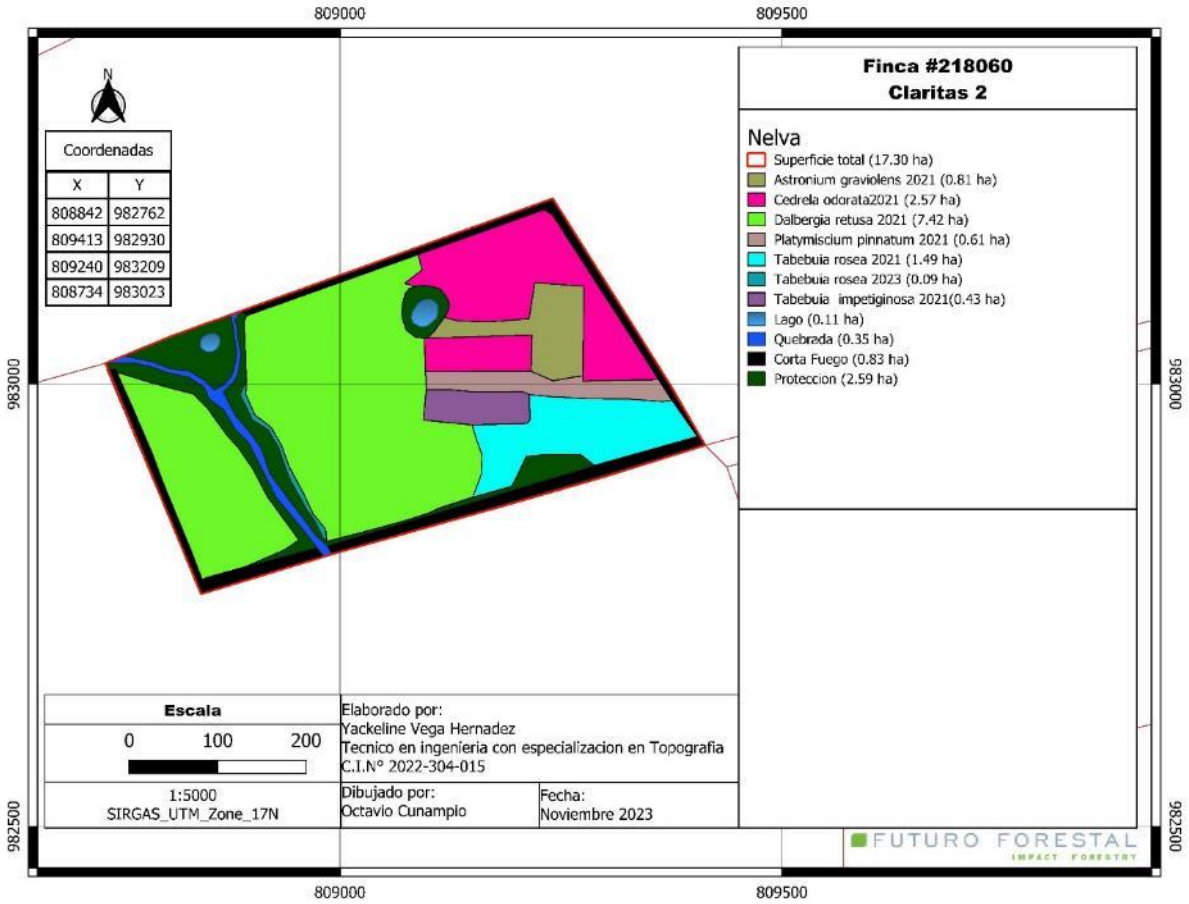


FIGURE 16. MAP OF THE CLARITAS 2 FARM (NO. 218060).

Monitoring and growth data

Table 9. Average Growth of native tree species planted in 202

Darién		Growth data: Clarita 2						2021		
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**	**AB (m2/ha)**
Guayacán morado	*Tabebuia impetiginosa*	2021	abr-23	1.7	44	0.00	0.35	0.00	0.17	0.0000
Quira	*Platymiscium pinnatum*	2021	abr-23	1.7	108	1.10	1.00	0.55	0.50	0.0004
Roble	*Tabebuia rosea*	2021	abr-23	1.7	16	1.74	1.65	0.87	0.82	0.0040

In the table of references of Clarita 2, we note that the “Roble”, marks a good development in growth followed by the “Quira” and then the “Guayacán morado”.

Table 10. Executed Annual Operation Plan 2023

Farm No. 218060 - Claritas 2																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed Control - Strip Cleaning	-	-	-	-	-	17	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	39
Formation pruning	-	-	-	-	-	3	-	-	-	-	-	5	-	-	-	8	-	-	-	-	-	-	-	-	-	16
Replanted	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	1	-	-	-	-	-	-	-	-	-	28
Organic Mulch	-	-	3	-	14	46	-	-	3	-	14	7	-	-	3	-	14	-	-	-	3	-	14	-	71	53
CPC- Fires-maintenance of fire breaks	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39
Manual phytosanitary control - *Hypsipyla grandella*	1	4	1	3	1	4	1	5	1	5	1	3	1	-	1	6	1	10	1	7	1	10	1	-	9	57
Monitoring	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Manual weed control - maintenance slice	-	-	-	-	-	-	-	-	-	-	-	8	-	25	-	3	-	2	-	-	-	-	-	-	-	38
Weed control - mechanical - Güira	-	-	-	-	-	14	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	68
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Fence maintenance	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	8
Manual phytosanitary control - Leaf-cutter ants	-	2	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Phytosanitary-Chemical-phytosanitary	-	-	-	4	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8

control - *Hypsipyla grandella*																										
Weed control - mechanical - Tractor	-	-	0	-	1	-	0	1	0	-	1	-	-	-	0	-	1	-	-	-	-	-	-	-	2	1
Granular fertilization	-	-	-	-	-	-	-	-	-	-	8	-	-	15	-	-	-	-	-	-	-	-	-	-	8	15
Plant straightening	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Manual Weed Control - Liana Cutting	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	2	-	3	-	-	-	-	-	-	-	10
Grand Total	**1**	**6**	**4**	**46**	**16**	**98**	**1**	**17**	**4**	**23**	**23**	**24**	**1**	**90**	**4**	**23**	**16**	**15**	**1**	**7**	**4**	**58**	**15**	**-**	**89**	**407**

5.2.7. Farm No. 235668 Claritas 3

Reforestation summary

Table 11. Reforested area by category.

Farm No. 235668 - Claritas 3					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2020	
Cocobolo	Dalbergia retusa	3x4	833	8.70	8.70
Total reforested				**8.70**	**8.70**
Area for planting					28.00
Protection area					2.53
Stream area					1.50
Artificial lake					0.50
Fire breaks					1.00
Total Surface Area					**42.23**

Map of the Farm

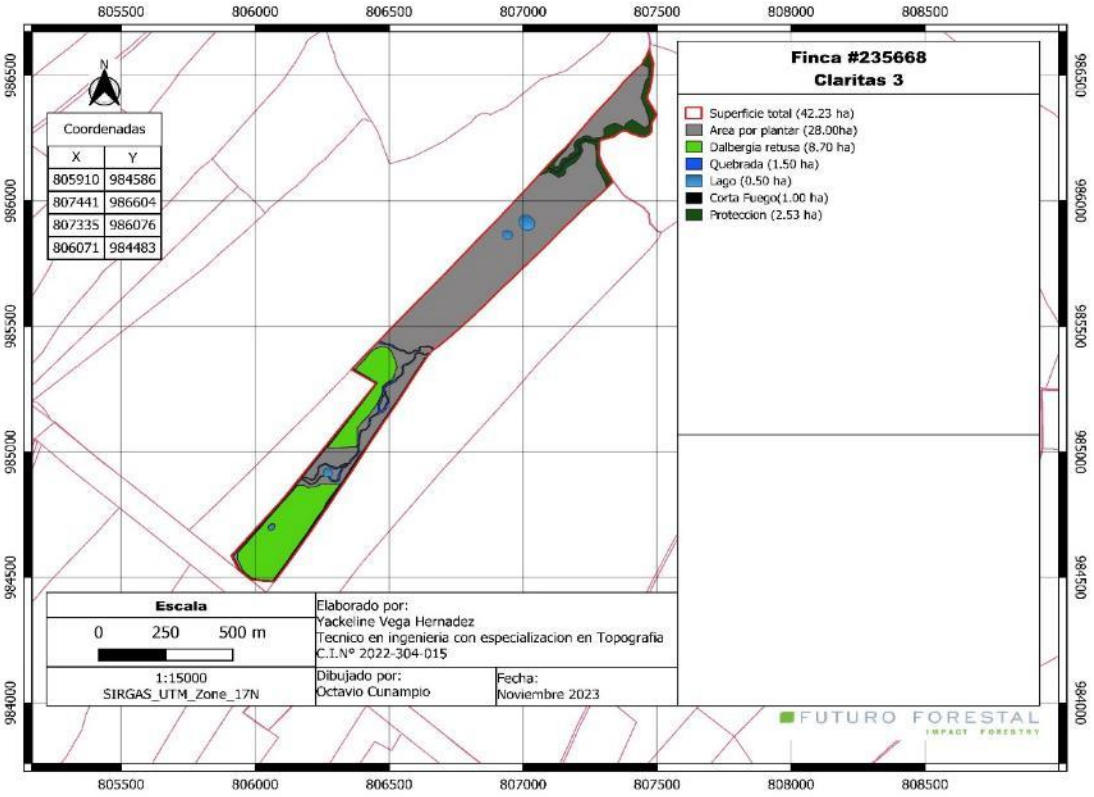


FIGURE 17. MAP OF THE CLARITAS 3 FARM (NO. 235668).

5.2.8. Farm No. 1866 Darío Castro

Reforestation summary

Table 12. Categorization of reforested area.

Farm No. 1866 - Darío Castro					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2021	
Cocobolo	*Dalbergia retusa*	3x4	833	6.61	6.61
Cedro Amargo	*Cedrela odorata*	3x4	833	2.73	2.73
Guayabo de Charco	*Terminalia oblonga*	3x4	833	1.90	1.90
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	3.30	3.30
Roble	*Tabebuia rosea*	3x4	833	3.09	3.09
Ron Ron	*Astronium graveolens*	3x4	833	3.99	3.99
Teak	*Tectona grandis*	4x5	500	9.99	9.99
Total reforested				**31.61**	**31.61**
Protection area					4.92
Stream area					4.80
Artificial lake					0.20
Infrastructure					1.10
Total Surface Area					**42.63**

Map of the Farm

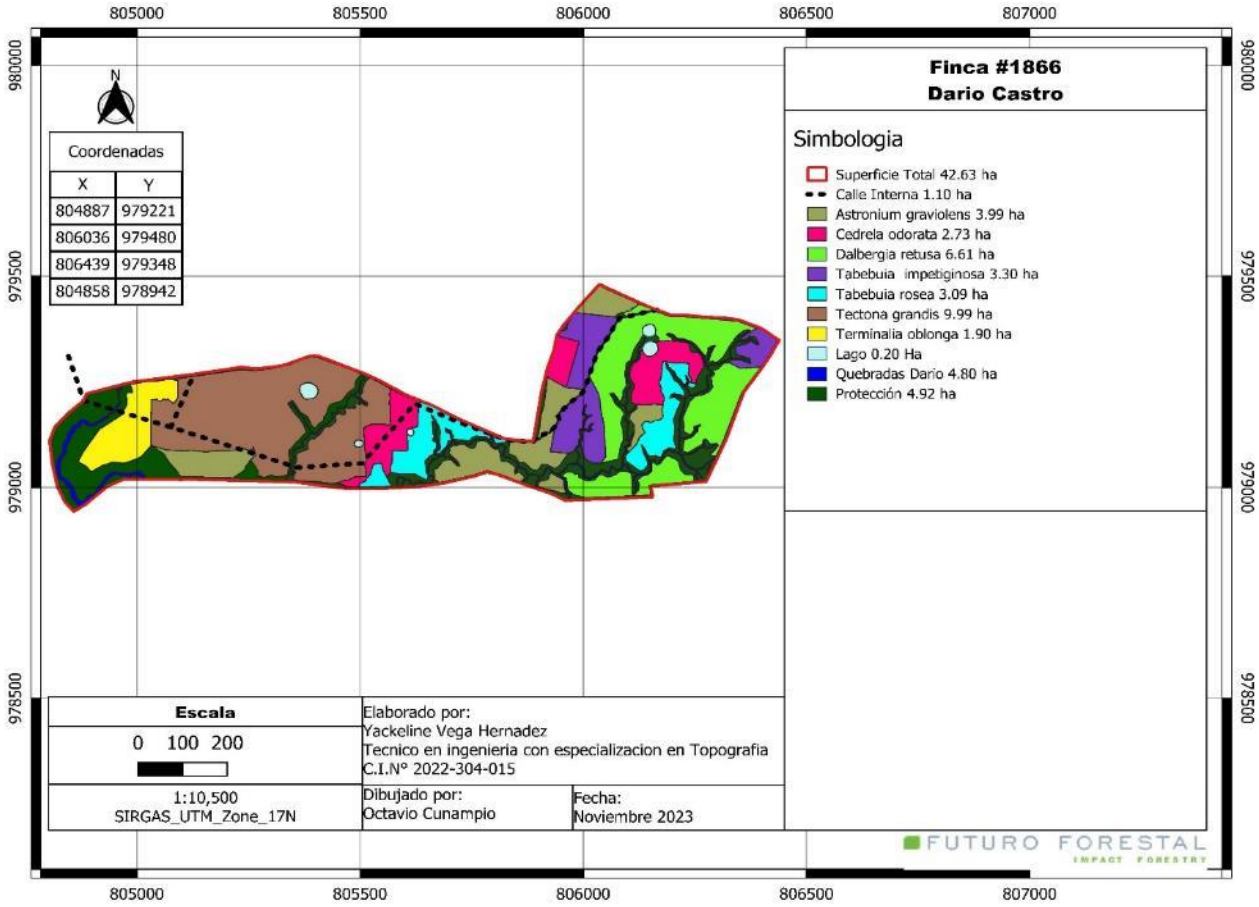


FIGURE 18. MAP OF THE DARÍO CASTRO FARM (NO. 1866).

Monitoring and growth data

Table 13. Average growth of planted natives in year 2021

Darién		Growth data: Darío Castro						2021		
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**	**AB (m2/ha)**
Cocobolo	*Dalbergia retusa*	2021	abr-23	1.7	140	1.92	2.98	0.96	1.49	0.0440
Cedro amargo	*Cedrela odorata*	2021	abr-23	1.7	73	2.81	2.02	1.40	1.01	0.0487
Guayacán morado	*Tabebuia impetiginosa*	2021	abr-23	1.7	107	0.00	0.39	0.00	0.19	0.0000
Guayabo de charco	*Terminalia oblonga*	2021	abr-23	1.7	48	2.01	2.39	1.01	1.19	0.0180
Ron Ron	*Astronium graveolens*	2021	abr-23	1.7	47	1.26	2.04	0.63	1.02	0.0061
Roble	*Tabebuia rosea*	2021	abr-23	1.7	85	2.60	2.32	1.30	1.16	0.0486

Analyzing the growth chart and with the descriptions mentioned above, we note that the Average Annual Growth of all species are within the optimal parameters, except for the purple Guayacan, we note that this species presents a growth pattern lower than all, due to factors such as: morphological state and agro-ecological conditions.

Table 14. Average growth of planted Teak in year 2021

Darién		Growth data: Darío Castro						2021	
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**
Teak	*Tectona grandis*	2021	april-23	1.7	410	3.26	3.22	1.96	1.93

The behavior of teak is within the growth margin, however, it will require the response of the silvicultural treatments carried out in 2024.

Table 15. Executed Annual Operation Plan 2023

Farm No. 1866 - Darío Castro																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed Control - Strip Cleaning	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	28	-	-	-	-	-	-	-	43
Formation pruning	-	6	-	-	-	3	-	5	-	11	-	3	-	3	-	5	-	2	-	-	-	-	-	-	-	38
Replanted	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	14	-	-	-	-	-	-	-	-	-	31
Rganic Mulch	-	-	37	-	19	32	-	27	37	18	19	-	-	17	37	-	19	-	-	-	37	-	19	-	226	94
CPC- Firese-maintaining fire break rounds	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Manual phytosanitary control - *Hypsipyla grandella*	0	6	0	19	0	8	0	10	0	11	0	2	0	2	0	5	0	6	0	8	0	8	0	-	5	85
Manual weed control - maintenance slice	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	34	-	5	-	-	-	-	-	-	-	47
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Manual phytosanitary control-worms	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
Fence maintenance	-	-	-	-	-	7	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Manual phytosanitary control - Leaf-cutter ants	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Phytosanitary-chemical	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4

control - *Hypsipyla grandella*																										
Manual Weed Control - Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	4
Tractor driver	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Supervision	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Chainsaw operator	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Manual-cleaning weed control	-	-	-	-	50	40	-	34	-	-	50	18	-	-	-	-	50	-	-	-	-	-	-	-	149	92
Weed control - chemical - Knapsack Pump	-	-	-	-	-	-	-	-	82	32	-	-	-	47	82	-	-	-	-	-	82	-	-	-	247	79
Removal of sprouts	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Maintenance of internal roads	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	3
Grand total	**0**	**64**	**38**	**19**	**70**	**111**	**0**	**77**	**120**	**74**	**70**	**36**	**0**	**86**	**120**	**60.00**	**70**	**47.00**	**0**	**8.00**	**120**	**10.00**	**20**	**-**	**628**	**592.00**

5.2.9. Farm No. 3479 Raúl Castro

Reforestation summary

Table 16. Categorization of reforested areas.

Farm No. 3479 - Raúl Castro					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2021	
Cocobolo	*Dalbergia retusa*	3x4	833	14.40	14.40
Total reforested				**14.40**	**14.40**
Protection area					9.26
Stream area					3.30
Total Surface Area					**26.96**

Map of the Farm

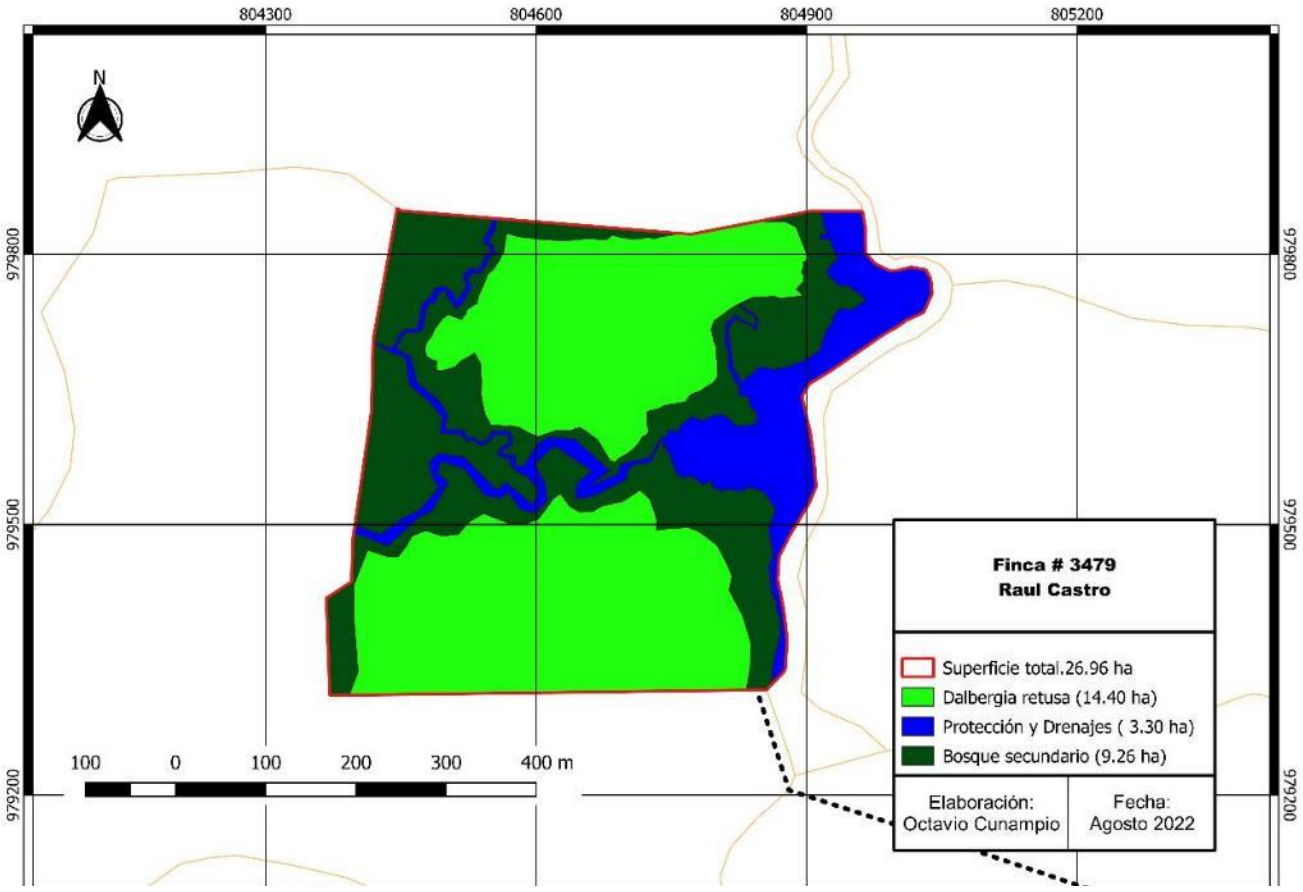


FIGURE 19. MAP OF THE FARM RAÚL CASTRO (NO. 3479).

Monitoring and growth data

Table 1. Average growth of planted natives in year 2021

Darién		Growth data: Raúl Castro						2021	
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**
Cocobolo	*Dalbergia retusa*	2021	abr-23	1.7	770	0.00	0.5	0.00	0.26

Currently, this plantation is not within the optimal growth parameters which we are waiting for. For this year 2024, we will be carrying out line clearance and release works to obtain a favorable response in growth.

Table 17. Executed Annual Operation Plan 2023

Farm No. 3479 - Raúl Castro																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed Control - Strip Cleaning	-	-	-	-	-	60	-	-	-	-	14	18	-	-	-	-	-	-	-	-	-	-	-	-	14	78
Organic Mulch	-	-	30	-	-	-	-	-	30	44	-	-	-	-	30	-	-	-	-	-	30	-	-	-	120	44
CPC- Fire-maintaining fire break rounds	-	20	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
Fence maintenance	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Supervision	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Clearance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	-	-	-	-	-	-	-	-	-	46
Manual-cleaning weed control	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	-	-	-	-	-	-	-	-	-	66
Grand total	**-**	**20**	**30**	**12**	**-**	**62**	**-**	**-**	**30**	**44**	**14**	**18**	**-**	**-**	**30**	**112**	**-**	**-**	**-**	**-**	**30**	**-**	**-**	**-**	**134**	**268**

5.2.10. Farm No. 30358872 Límite

Reforestation summary

Table 18. Categorization of reforested areas.

Farm No. 30358872 - El Limite						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2021	2022	
Bálsamo	*Myroxylon balsamum*	3x4	833	0.50		0.50
Caoba	*Swietenia macrophylla*	3x4	833		0.30	0.30
Cedro Amargo	*Cedrela odorata*	3x4	833	4.00		4.00
Cocobolo	*Dalbergia retusa*	3x4	833	6.60	1.74	8.34
Total reforested				**11.10**	**2.04**	**13.14**
Stream area						1.00
Protection area						2.302
Infrastructure						
Total Surface Area						**16.442**

Map of the Farm

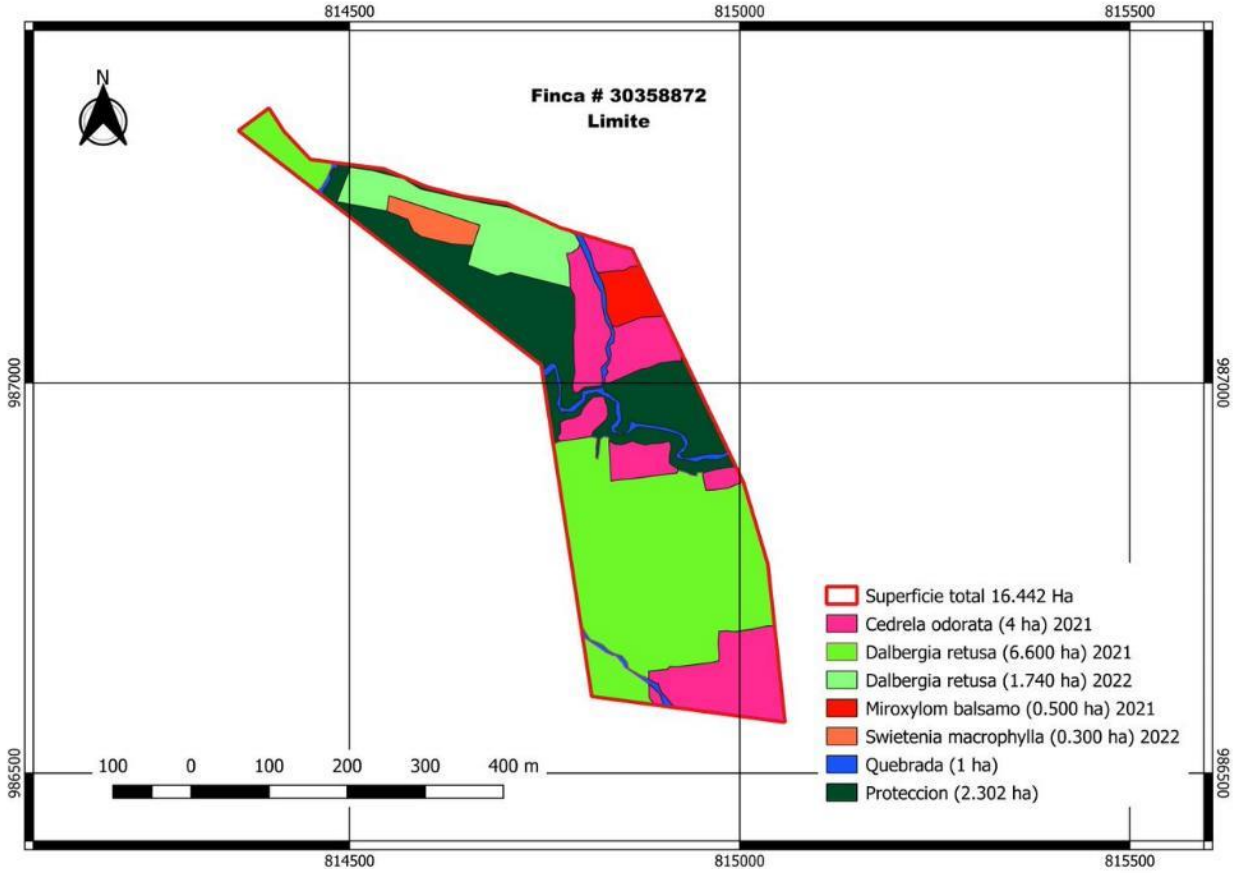


Figure 20. Map of the Farm Límite (No. 30358872).

Monitoring and growth data

Table 19. Average growth of planted natives in year 2021

Darién		Growth data: Limite						2021		
Common name	**Scientific name**	**Planting year**	**Measurement year**	**Age**	**Tree/ha**	**DAP Average (cm)**	**Average of Ht (m)**	**IMA DAP**	**IMA Ht**	**AB (m2/ha)**
Cocobolo	*Dalbergia retusa*	2021	abr-23	1.7	360	1.88	2.15	0.94	1.08	0.0704
Cedro amargo	*Cedrela odorata*	2021	abr-23	1.7	195	2.00	1.44	1.00	0.72	0.0403
Caoba	*Swietenia macrophylla*	2021	abr-23	1.7	15	0.00	1.22	0.00	0.61	0.0000

Table 20. Executed Annual Operation Plan 2023

Farm No. 30358872 - El Limite																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual-cleaning weed control	-	-	-	-	5	-	-	-	-	-	5	16	-	-	-	-	5	-	-	-	-	-	-	-	15	16
Weed Control - Strip Cleaning	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	14	-	37	-	26	-	-	-	-	-	85
Manual phytosanitary controlarrieras	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Supervision	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Formation pruning	-	-	5	-	-	-	-	-	5	-	-	-	-	3	5	4	-	-	-	-	5	-	-	-	21	7
Replanted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	12
Organic Mulch	-	-	24	-	9	-	-	18	24	-	9	-	-	-	24	-	9	-	-	-	24	-	9	-	132	18
Tractor driver	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
CPC- Firese-maintaining fire break rounds	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Clearance	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Manual weed control-maintenance of mulch and slice	-	-	-	14	-	1	-	-	-	-	-	45	-	31	-	7	-	13	-	-	-	-	-	-	-	111
Phytosanitary-chemical control - *Hypsipyla grandella*	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Manual phytosanitary control - *Hypsipyla grandella*	0	-	1	-	1	8	1	4	1	7	1	9	1	7	1	4	1	2	1	3	1	-	0	-	9	44
Monitoring	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Weed control - mechanical - Güira	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	5
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	9
Grand total	**0**	**12**	**30**	**23**	**15**	**12**	**1**	**25**	**30**	**7**	**15**	**70**	**1**	**41**	**30**	**34**	**15**	**66**	**1**	**38**	**30**	**-**	**9**	**-**	**176**	**328**

5.2.11. Farm No. 2627 Genarino Peralta

Reforestation summary

Table 21. Categorization of reforested areas.

Farm No. 2627 - Genarino Peralta					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Cocobolo	*Dalbergia retusa*	3x4	833	4.15	4.15
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	3.68	3.68
Teak	*Tectona grandis*	4x5	500	1.99	1.99
Total, reforested				**9.82**	**9.82**
Bambú					0.32
Area to plant					7.34
Protection area					2.52
Stream area					0.76
Artificial Lake					0.07
Fire breaks					0.77
Total Surface Area					**21.60**

Map of the Farm

FIGURE 21. MAP OF THE FARM GENARINO PERALTA (NO. 2726).

Table 22. Executed Annual Operation Plan 2023

Farm No. 2627 - Genarino Peralta																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual weed control - maintenance slice	-	-	-	-	-	27	23	27	-	-	-	-	-	-	-	-	-	29	-	3	23	-	-	-	46	86
Weed Control - Strip Cleaning	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	11	-	-	-	19
Organic Mulch	-	-	-	-	-	42	-	-	23	8	-	-	-	-	-	-	23	-	-	-	-	-	-	-	46	50
Manual-cleaning weed control	-	7	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	5	-	10	24	-	-	-	24	30
CPC fires-establishment of fire break rounds	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27
Fence maintenance	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	9
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	17
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	14	-	2	-	-	-	-	-	-	-	-	-	49	-	-	-	65
Replanted	-	-	-	-	-	-	-	-	4	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	4	17
Girdle and slice cleaning	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Manual weed control-maintenance of mulch	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Weed control - chemical - knapsack pump	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Chainsaw Operator	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Assistant Chainsaw Operator	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Weed control - chemical slice	-	-	-	-	-	-	-	-	24	1	-	-	-	-	24	-	-	-	-	-	24	-	-	-	71	1
Grand total	**-**	**17.00**	**-**	**34.00**	**-**	**74.00**	**23**	**35.00**	**50**	**25.00**	**-**	**2.00**	**-**	**34.00**	**24**	**4.00**	**23**	**35.00**	**-**	**13.00**	**71**	**60.00**	**-**	**-**	**190**	**333.00**

5.2.12. Farm No. 4869 Ubaldino Consuegra

Reforestation summary

Table 23. Categorization of Reforested areas.

Farm No. 4869 - Ubaldino Consuegra					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Cocobolo	*Dalbergia retusa*	3x4	833	0.29	0.29
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	6.62	6.62
Total reforested				**6.91**	**6.91**
Area to plant					9.36
Protection area					5.26
Stream area					0.44
Artificial lake					0.04
Fire break					0.60
Total Surface Area					**22.61**

Map of the Farm

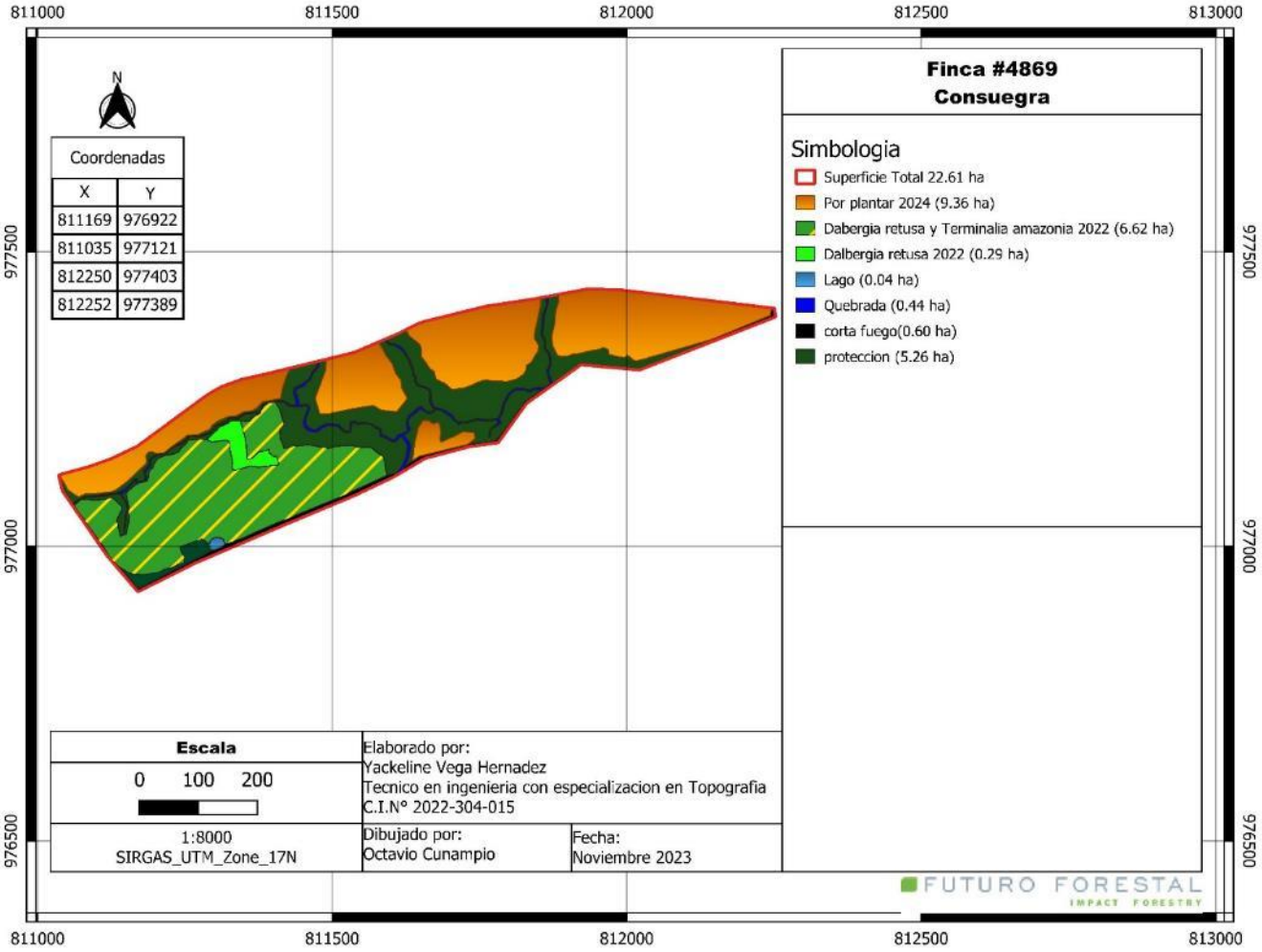


FIGURE 22. MAP OF THE FARM UBALDINO CONSUEGRA (NO. 4869).

Table 24. Executed Annual Operation Plan 2023

Farm No. 4869 - Ubaldino Consuegra																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual weed control - maintenance slice	-	-	32	-	-	33	-	-	-	-	-	4	32	33	-	-	-	25	-	-	-	-	-	-	64	95
Orgnanic Mulch	-	-	-	-	-	24	32	45	-	-	-	-	-	2	-	-	-	-	32	-	-	-	-	-	64	71
Manual-cleaning weed control	-	-	-	9	41	6	-	17	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	41	33
Replanting	-	-	-	-	-	-	-	-	0	-	1	-	-	12	-	-	-	1	-	-	-	-	-	-	1	13
Weed Control - Strip Cleaning	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	1	-	4	-	20	-	-	-	-	-	38
Weed Control-Chemicals in Strip	-	-	-	-	-	-	6	-	-	-	6	1	-	-	-	-	-	-	-	-	6	12	-	-	17	13
Formation pruning	-	-	-	-	-	-	5	-	4	-	-	-	-	5	-	-	-	-	5	-	-	-	-	-	14	5
Manual weed control-maintenance of slice	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Supervision	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
CPC fire-establish fire breaks	-	-	-	24	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Control of weeds - manual-cleaning	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Weed control - chemical - Knapsack Pump	-	5	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Fence maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Manual Planting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Manual Weed Control - Bejuco Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	10
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	7
Grand total	**-**	**9**	**32**	**34**	**41**	**69**	**43**	**62**	**4**	**26**	**6**	**23**	**32**	**60**	**-**	**4**	**-**	**40**	**37**	**20**	**6**	**12**	**-**	**-**	**201**	**359**

5.2.13. Farm No. 886 Gindi Trujillo

Reforestation summary

Table 25. Categorization of reforested areas.

Farm No. 886 - Gindi Trujillo					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Amarillo y Almendro	*Terminalia amazonia* y *Dipteryx panamensis*	3x4	833	2.65	2.65
Caoba	*Swietenia macrophylla*	3x4	833	0.88	0.88
Cedro Amargo	*Cedrela odorata*	3x4	833	2.75	2.75
Cocobolo Mixto	*Dalbergia retusa mixto*	3x4	833	2.57	2.57
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	2.62	2.62
Roble	*Tabebuia rosea*	3x4	833	0.45	0.45
Teak	*Tectona grandis*	4x5	500	4.12	4.12
Total reforested				**16.04**	**16.04**
Protection area					1.90
Total Surface Area					**17.94**

Map of the Farm

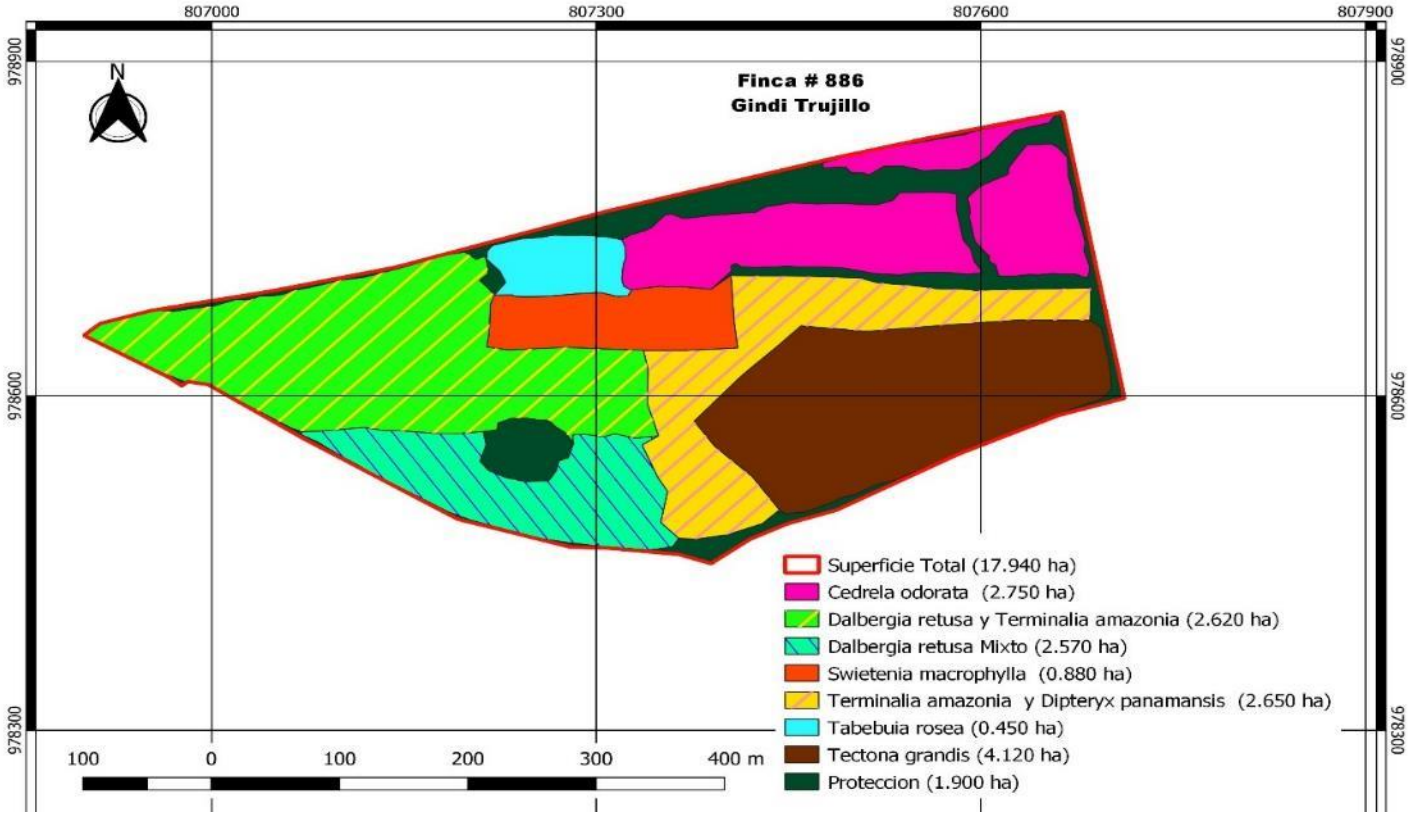


FIGURE 23. MAP OF THE FARM GINDI TRUJILLO (NO. 886).

Table 26. Executed Annual Operation Plan 2023

Farm No. 886 - Gindy Trujillo																										
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Manual weed control – maintenance of slices	-	-	-	13	-	16	74	48	-	-	-	13	-	-	-	-	74	-	0	17	-	15	-	-	149	122
Weed Control - Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	-	2	-	-	-	-	-	46
Organic Mulch	-	-	-	22	-	-	19	17	55	73	-	-	-	-	-	-	19	-	53	-	2	-	-	-	148	112
Manual-cleaning weed control	-	-	-	-	-	-	0	13	97	47	-	-	-	-	-	-	-	5	-	-	-	-	-	-	97	65
Fence maintenance	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	12	-	-	-	20
Replanting	-	-	-	-	-	-	-	-	14	-	-	-	-	58	-	-	-	-	-	-	-	-	-	-	14	58
Weed control - chemical - knapsack pump	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Establishment of fore break rounds	-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25
Supervision	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
CPC- Fires-maintaining fire breaks	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Manual phytosanitary control -leaf-cutter ants	0	2	-	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	7	2
Weed control-chemical tractor	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Contractor Supervision	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Formation pruning	-	-	-	-	-	-	10	3	-	-	-	3	-	2	-	-	-	-	10	-	-	-	-	-	20	8

Manual phytosanitary control- Hypsipyla grandella	0	-	-	-	0	-	0	1	0	-	0	1	0	3	0	-	0	-	0	-	0	3	-	-	1	8
Manual Weed Control - Bejuco Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	6
Weed control - mechanical - Güira	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	20	-	-	-	-	5	20
Grand total	**0**	**70**	**-**	**35**	**1**	**19**	**105**	**84**	**166**	**120**	**1**	**17**	**1**	**63**	**1**	**6**	**99**	**49**	**65**	**47**	**2**	**30**	**1**	**-**	**440**	**540**

5.2.14. Farm No. 217884 Raúl Espinoza

Reforestation summary

Table 27. Categorization of reforested areas.

Farm No. 217884 - Raúl Espinoza						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Caoba	*Swietenia macrophylla*	3x4	833	2.77		2.77
Cativo	*Prioria copaifera*	3x4	833	0.92		0.92
Cedro amargo	*Cedrela odorata*	3x5	833	1.00		1.00
Cocobolo	*Dalbergia retusa*	3x4	833	7.55		7.55
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	3.12		3.12
Espavé	*Anacardium excelsum*	3x4	833	0.78		0.78
Roble	*Tabebuia rosea*	3x5	834		0.68	0.68
Roble y Cedro Amargo	*Tabebuia rosea y Cedrela odorata*	3x4	833	3.43		3.43
Teak	*Tectona grandis*	4x5	500	4.82		4.82
Total reforested				**24.39**	**0.68**	**25.07**
Protection area						8.39
Stubble						0.30
Stream Area						2.00
Artificial lake						0.50
Infrastructure						0.68
Total Surface Area						**36.94**

Map of the Farm

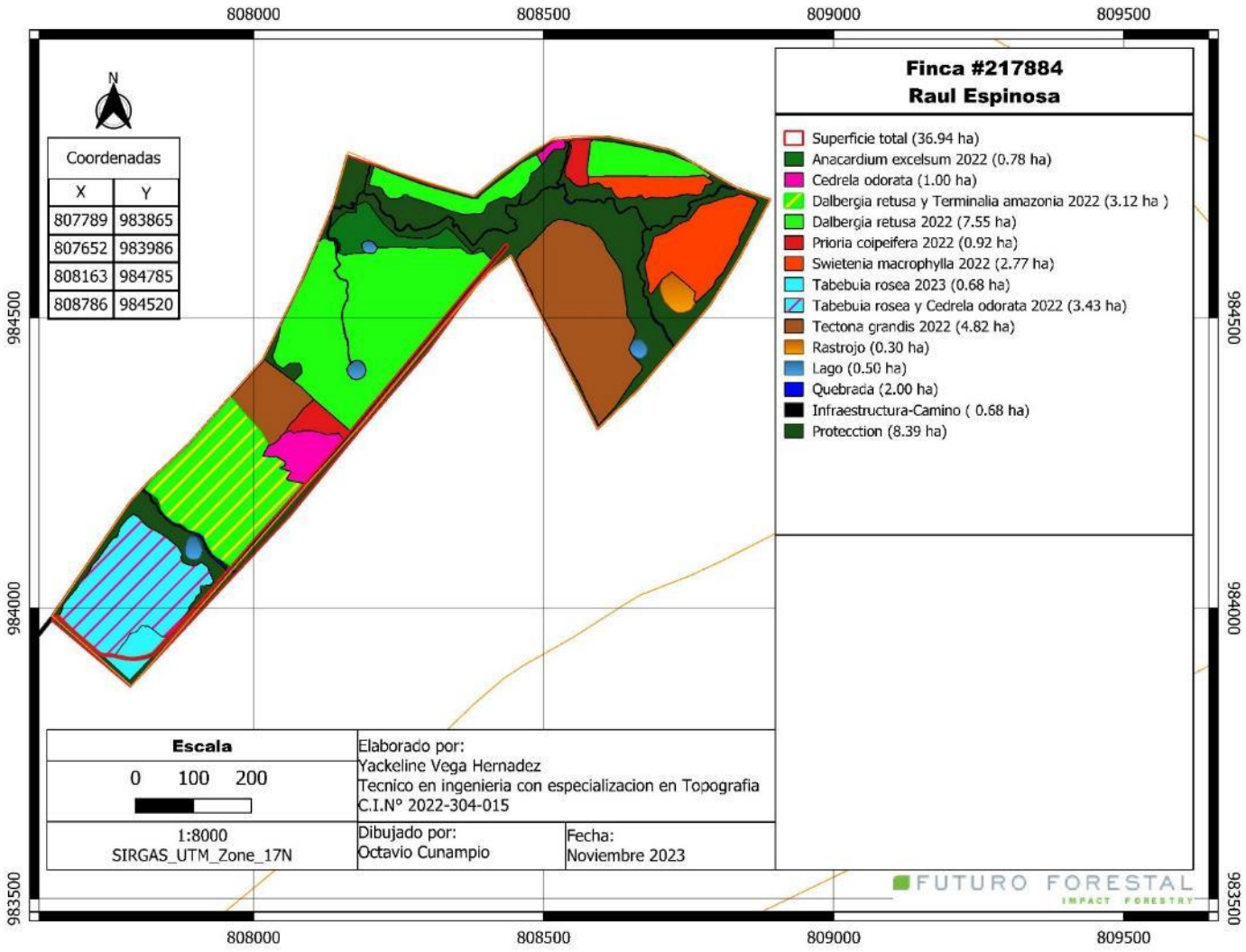


FIGURE 24. MAP OF FARM RAÚL ESPINOZA (NO. 217884).

Table 28. Executed Annual Operation Plan 2023

Farm No. 217884 - Raúl Espinoza																								
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Manual weed control - maintenance slice	-	-	-	-	23	1	74	17	-	19	-	3	-	32	-	2	-	-	-	-	97	-	-	-	195	74
Weed Control - Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-	64	-	41	-	2	-	-	-	170
CPC- Fires-maintenance of fire break rounds	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Supervision	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Organic Mulch	-	-	-	-	-	26	35	100	74	31	-	-	-	-	-	-	87	-	-	-	-	-	22	-	218	157
Manual-cleaning weed control	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	6	17	-	128	-	-	-	144	8
CPC- Fires-establishing fire breaks	-	-	-	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29
Phytosanitary-chemical control -Hypsipyla grandella	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5
Manual phytosanitary control - Hypsipyla grandella	-	-	-	-	0	-	0	-	0	-	0	-	0	-	0	3	0	-	0	3	0	-	0	-	2	6
Formation pruning	-	-	-	-	23	2	-	-	-	-	-	-	23	13	-	2	-	-	-	-	-	-	-	-	45	17
Fence maintenance	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Construction of internal roads	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Contractor Supervision	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Contingencies	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Monitoring	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Weed control - chemical - Knapsack Pump	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18

Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-	-	-	115	-	-	-	-	-	140
Manual phytosanitary control - Leaf-cutter ants	-	2	-	1	1	-	1	-	1	-	1	1	1	-	1	-	1	-	1	-	1	-	1	-	12	4
Mechanical Planting	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Manual Planting	-	-	-	-	-	-	-	-	-	-	-	2	-	6	-	-	-	-	-	-	-	-	-	-	-	8
Replanted	-	-	-	-	-	-	-	-	6	-	2	3	0	8	-	1	-	-	-	-	-	-	-	-	8	12
Weed control - mechanical - Güira	-	-	-	19	5	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	5	33
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Weed control - establishment slice	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Grand total	**-**	**34**	**-**	**49**	**53**	**32**	**111**	**124**	**81**	**93**	**3**	**27**	**24**	**59**	**2**	**88**	**88**	**75**	**18**	**159**	**227**	**2**	**23**	**-**	**630**	**742**

5.2.15. Farm No. 960 Sandra Fernández (Espavé)

Reforestation summary

Table 29. Categorization of reforested areas.

Farm No. 960 - Sandra Fernández						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			**2022**	**2023**	
Almendro	*Dipteryx panamensis*	3x4	833	5.85	0.82	6.67
Amarillo y Amarillo Guayaquil	*Terminalia Amazonia* y *Centrolobium yavizanum*	3x4	833	0.37		0.37
Bálsamo	*Myroxylon balsamum*	3x4	833	0.93		0.93
Caoba	*Swietenia macrophylla*	3x4	833	0.55		0.55
Cedro Amargo	*Cedrela odorata*	3x4	833	4.40		4.40
Cocobolo	*Dalbergia retusa*	3x4	833	15.56		15.56
Quira	*Platymiscium pinnatum*	3x4	833	1.15		1.15
Roble	*Tabebuia rosea*	3x4	833	0.42		0.42
Ron Ron	*Astronium graveolens*	3x5	833		0.67	0.67
Total reforested				**29.23**	**1.49**	**30.72**
Protection area						15.55
Stream area						3.70
Internal road						0.60
Total Surface Area						**50.57**

Map of Farm

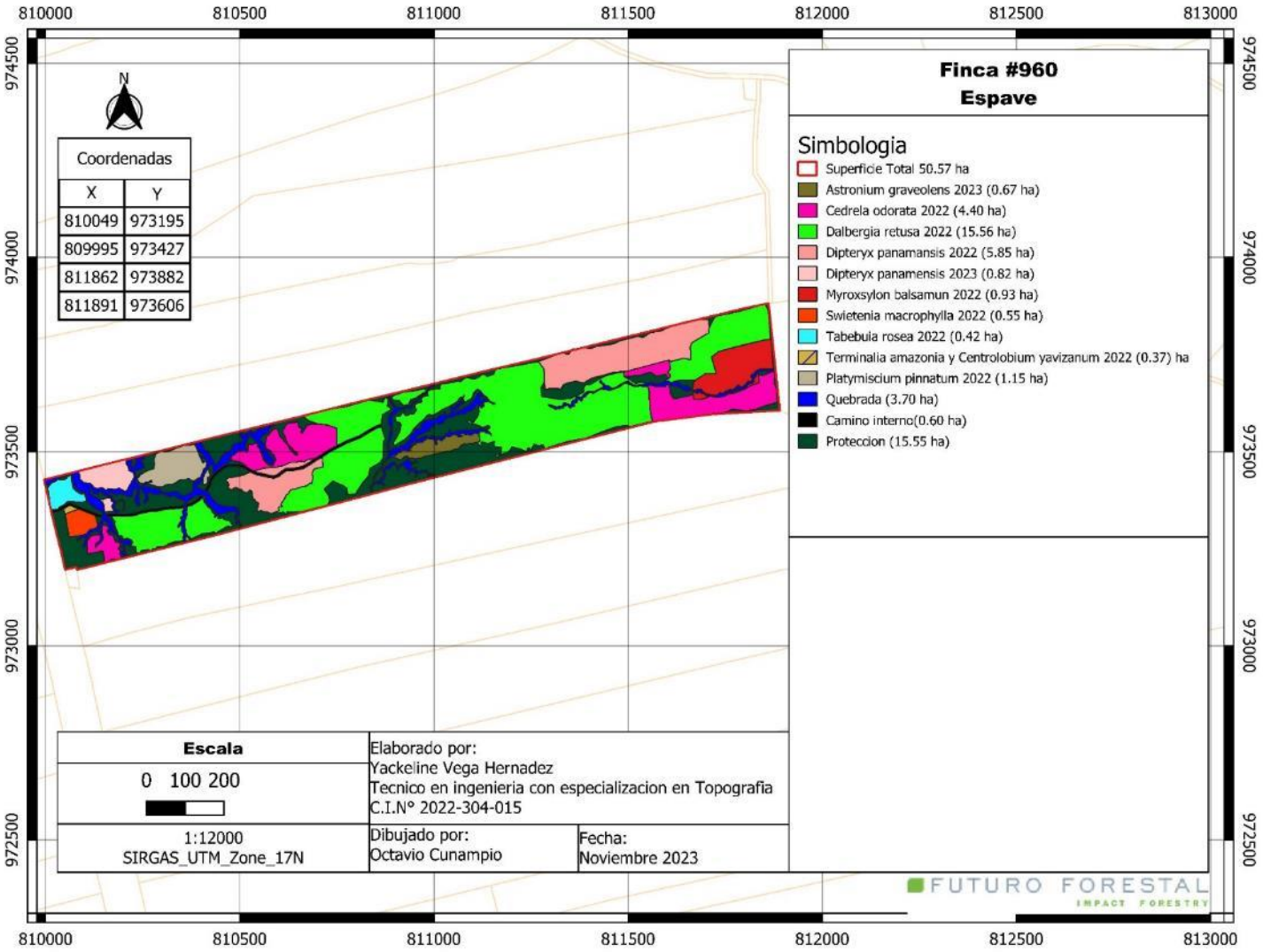


FIGURE 25. MAP OF THE FARM ESPAVÉ (NO. 960).

Table 30. Executed Annual Operation Plan 2023

Farm No. 960 - Sandra Fernández (Espavé)																										
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Replanted	-	-	-	-	-	-	-	-	6	-	0	40	-	9	-	32	-	-	-	-	-	-	-	-	6	81
Weed Control - Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	-	65	-	59	-	61	-	-	-	227
CPC- Fires-maintenance of fire breaks	-	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45
Control of slice-chemical slice	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Manual weed control - maintenance slice	27	2	-	50	0	49	0	-	0	-	159	111	0	18	-	47	-	-	-	-	-	-	-	-	187	277
Manual Weed Control - Bejuco Cutting	-	-	-	-	-	-	-	-	-	3	-	8	-	3	-	5	-	3	-	-	-	2	-	-	-	24
Supervision	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Organic Mulch	-	-	-	39	6	-	-	-	253	57	4	-	259	63	-	-	-	-	-	-	-	-	-	-	522	159
Manual Planting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	8
Chemical weed control - plot fumigation	-	7	-	-	2	-	-	-	50	-	-	-	-	-	49	-	-	-	-	-	-	-	49	-	150	7
Establish fire breaks	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90
Mechanical weed control	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Manual-cleaning weed control	308	74	-	-	-	20	-	-	-	-	-	-	-	-	-	42	-	4	-	-	344	-	-	-	653	140
CPC Fires-mechanical	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
CPC-Fires-Street sweeping	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

CPC fires-establishment of fire breaks	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Phytosanitary-Chemical-phytosanitary controlHypsipyla grandella	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	20
Manual phytosanitary control - Hypsipyla grandella	-	-	-	-	-	3	-	5	-	71	-	13	-	7	-	5	-	5	-	6	-	8	-	-	-	123
Contractor Supervision	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Formation pruning	-	-	-	-	17	-	-	-	-	1	-	1	17	3	-	2	-	-	-	-	-	-	-	-	33	7
Weed control - establishment of mulch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-	-	-	25
Fence maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	3
Weed control - chemical - Knapsack Pump	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Grand total	**335**	**251**	**-**	**89**	**25**	**73**	**0**	**8**	**308**	**132**	**163**	**173**	**276**	**103**	**49**	**211**	**-**	**96**	**-**	**65**	**344**	**71**	**49**	**-**	**1,551**	**1,272**

5.2.16. Farm No. 30387827 Joaquín Hernandez

Reforestation summary

Table 31. Categorization of reforested areas

Farm No. 30387827 - Joaquín Hernandez					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2022	
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	3.98	3.98
Teak	*Tectona grandis*	4x5	500	11.89	11.89
Total reforested				**15.87**	**15.87**
Protection area					9.13
Total Surface Area					**25.00**

Map of the Farm

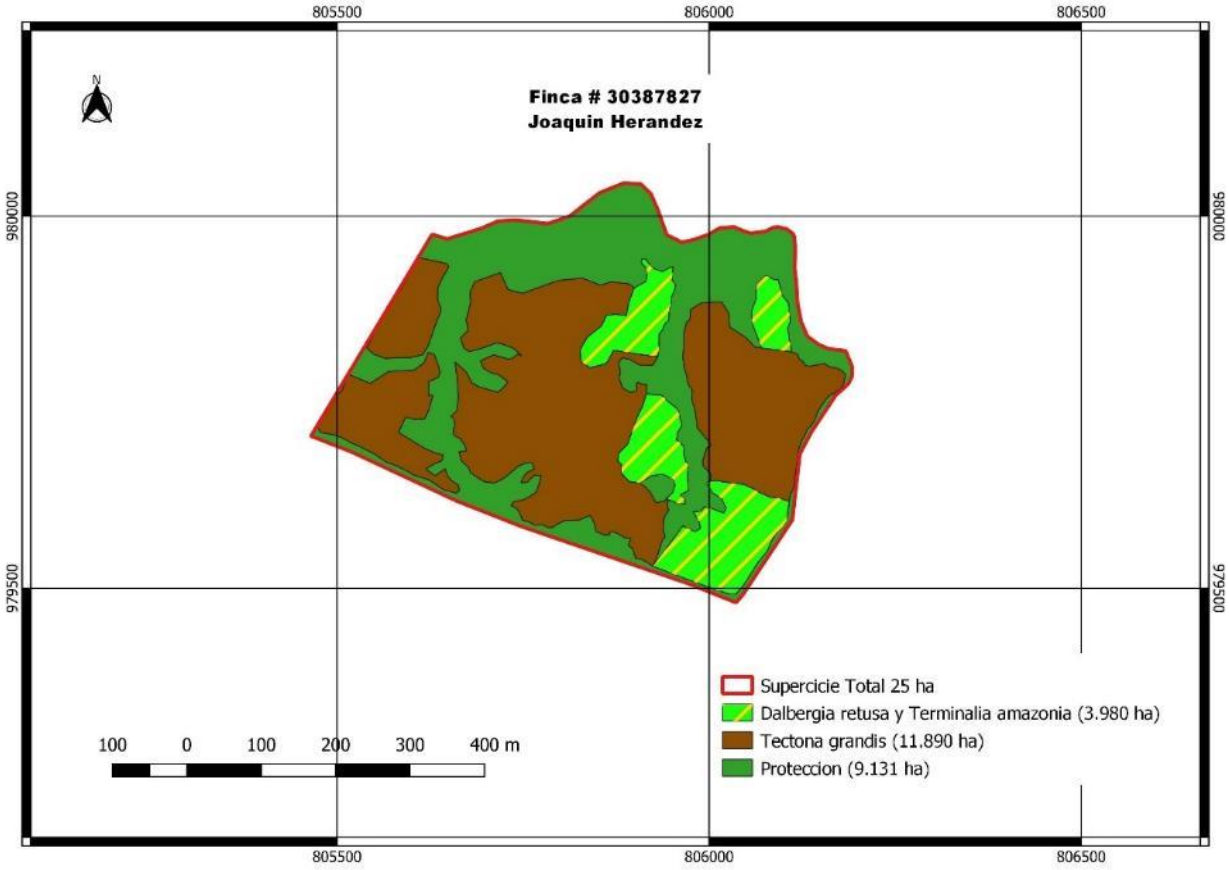


FIGURE 26. MAP OF THE FARM JOAQUÍN HERNANDEZ (NO. 30387827).

Table 32. Executed Annual Operation Plan 2023

Farm No. 30387827 - Joaquín Hernandez																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual weed control - maintenance slice	-	-	73	-	-	35	-	-	-	-	-	-	73	16	-	-	-	-	-	-	18	-	-	-	165	51
Organic Mulch	-	-	-	-	-	-	-	-	-	-	73	92	-	-	-	-	-	-	-	-	73	-	-	-	147	92
Manual-cleaning weed control	-	-	-	-	95	-	-	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	95	112
Replanting	-	-	-	-	-	-	-	-	-	-	2	-	-	12	-	-	-	-	-	-	-	-	-	-	2	12
CPC- Fires-keep fire break rounds	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Weed control - mechanical - Güira	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	9
CPC fires-establish fire breaks	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Manual phytosanitary control - Hypsipyla grandella	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Formation pruning	-	6	-	-	31	-	-	-	-	-	-	-	-	-	-	-	-	-	31	-	-	-	-	-	63	6
Fence maintenance	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Manual phytosanitary control -leaf-cutter ants	1	-	-	-	1	1	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	-	-	9	1
Weed Control - Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	21
Grand total	**1**	**26**	**73**	**6**	**128**	**57**	**1**	**112**	**1**	**-**	**76**	**92**	**74**	**28**	**1**	**-**	**1**	**-**	**32**	**21**	**96**	**-**	**-**	**-**	**485**	**342**

5.2.17. Farm No. 218047 Curry

Reforestation summary

Table 33. Categorization of reforested areas.

Farm No. 218047 - Curry (Las 15)					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	4.63	4.63
Cocobolo y Laurel	*Dalbergia retusa* y *Cordia alliodora*	3x4	833	3.36	3.36
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	1.04	1.04
Teak	*Tectona grandis*	4x5	500	0.94	0.94
Total reforested				**9.97**	**9.97**
Area to plant					4.26
Protection area					0.50
Artificial lake					0.10
Total Surface Area					**14.83**

Map of the Farm

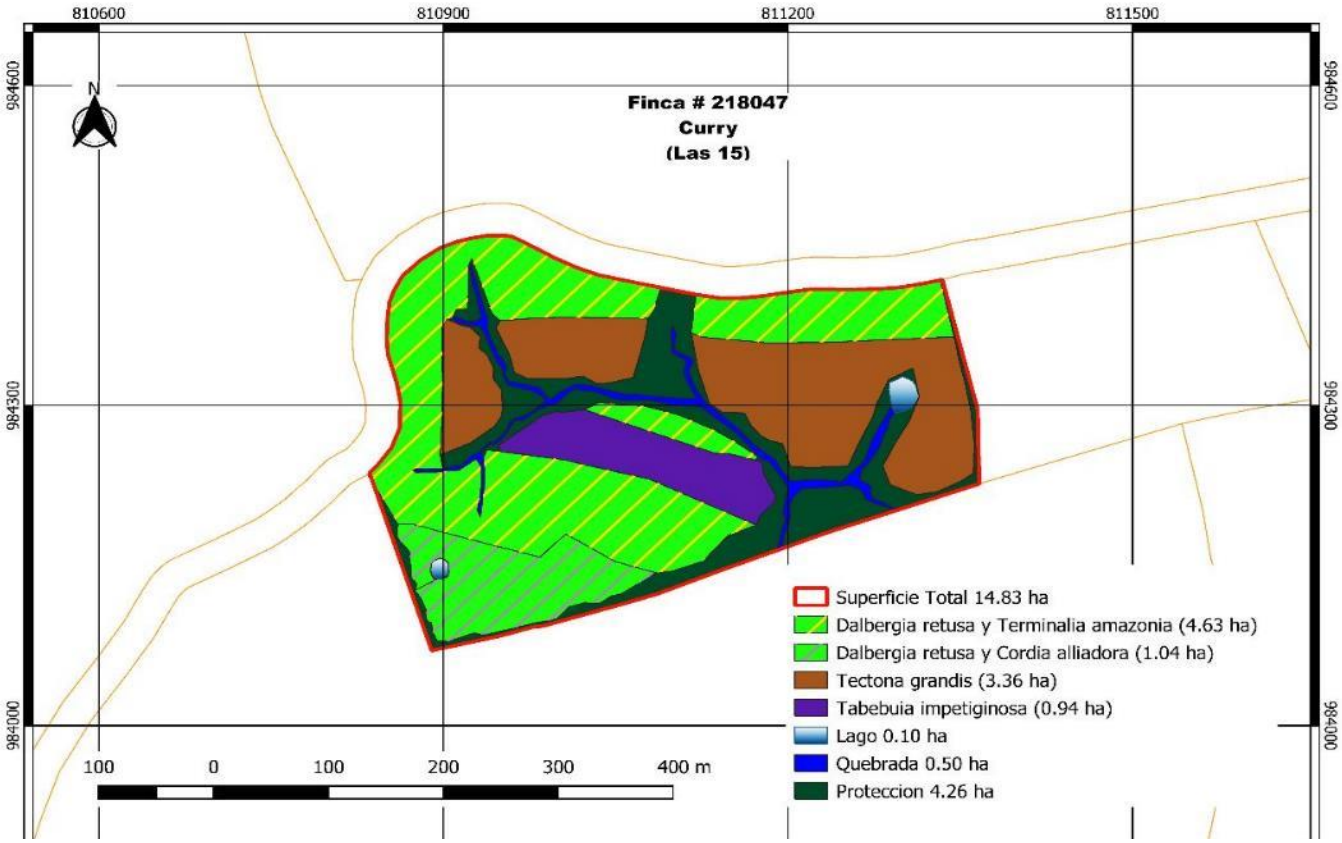


FIGURE 27. MAP OF THE FARM CURRY (NO. 218047).

Table 34. Executed Annual Operation Plan 2023

Farm No. 218047 - Curry (Las 15)																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual weed control - maintenance slice	-	-	-	-	-	17	41	55	-	-	-	-	-	58	-	18	41	-	-	-	-	-	-	-	83	148
Organic Mulch	-	-	-	-	-	13	-	-	4	-	37	23	-	-	-	-	9	-	32	-	-	-	-	-	83	36
Manual-cleaning weed control	-	-	-	-	-	-	-	-	12	-	30	7	-	-	-	-	-	-	-	-	-	-	-	-	42	7
Fence maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	3
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	18	-	-	-	-	-	20
Replanted	-	-	-	-	-	-	-	-	6	-	-	-	-	9	-	16	-	-	-	-	-	-	-	-	6	25
Supervision	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
CPC- Fires-maintaining fire break rounds	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Manual Weed Control - Bejuco Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4
Weed control - mechanical - Güira	-	-	-	6	-	-	-	-	-	-	-	23	-	-	-	-	2	20	-	-	-	-	-	-	2	49
Tractor driver	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Slice-chemical slice control	-	7	-	-	-	-	-	-	-	-	32	20	-	26	-	-	-	-	29	-	3	-	-	-	63	53
Chemical weed control - plot fumigation	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
CPC- Fire surveillance	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
CPC fire-establish fire breaks	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Manual phytosanitary control - Leaf-cutter ants	-	-	-	-	0	1	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	-	4	1
Grand total	**-**	**44**	**-**	**7**	**0**	**34**	**42**	**55**	**22**	**-**	**100**	**73**	**0**	**95**	**0**	**37**	**53**	**24**	**61**	**18**	**3**	**-**	**-**	**-**	**283**	**387**

5.2.18. Farm No. 30361092 Gerónima Castro (Corazón Nativo)

Reforestation summary

Table 35. Categorization of reforested areas.

Farm No. 30361092 - Gerónima Castro (Corazón Nativo)					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2022	
Berbá	*Brosimum alicastrum*	3x4	833	0.33	0.33
Caoba	*Swietenia macrophylla*	3x4	833	0.66	0.66
Cedro Amargo	*Cedrela odorata*	3x4	833	0.59	0.59
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	5.95	5.95
Cocobolo y Guásimo	*Dalbergia retusa* y *Guazuma ulmifolia*	3x4	833	1.53	1.53
Total reforested				**9.06**	**9.06**
Protection area					1.36
Total Surface Area					**10.42**

Map of the Farm

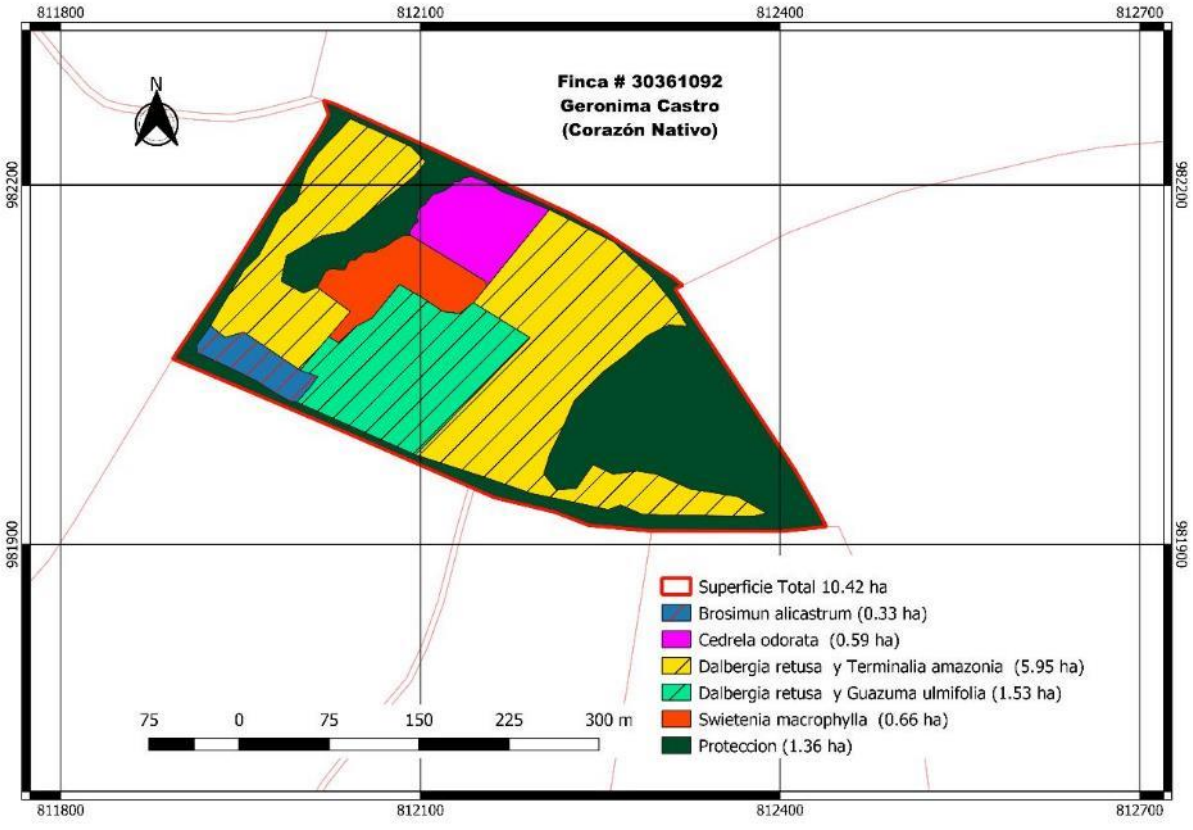


Figure 28. Map of the Farm Geronima Castro (No. 30361092).

Table 36. Executed Annual Operation Plan 2023

Farm No. 30361092 - Gerónimo Castro (Corazón Nativo)																										
DESCRIPTION	**January**		**Februar y**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual weed control - maintenance slice	-	-	42	10	-	-	-	-	-	-	42	26	-	-	-	70	-	26	-	-	-	-	-	-	84	132
Organic Mulch	-	-	-	-	-	-	42	90	-	-	-	-	-	-	40	-	-	-	2	-	0	-	-	-	84	90
Manual-cleaning weed control	-	-	-	-	-	32	-	-	-	-	54	4	-	27	-	-	-	1	-	-	-	-	-	-	54	64
Replanted	-	-	-	-	-	-	-	-	-	-	3	-	-	32	-	-	-	-	-	-	-	-	-	-	3	32
Weed Control - Strip Cleaning	-	-	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	107
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	18
Fence maintenance	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Formation pruning	-	-	-	-	7	-	-	1	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	14	1
Establishment of fire breaks	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4
Grand total	**-**	**26**	**42**	**29**	**7**	**36**	**42**	**91**	**-**	**-**	**99**	**30**	**-**	**63**	**40**	**70**	**-**	**133**	**9**	**-**	**0**	**-**	**-**	**-**	**238**	**478**

5.2.19. Farm No. 3905 Tello 1

Reforestation summary

Table 37. Categorization of reforested areas

Farm No. 3905 - Tello 1					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Almendro	*Dipteryx panamensis*	3x4	833	2.64	2.64
Almendro y Amarillo	*Dipteryx panamensis* y *Terminalia amazonia*	3x4	833	5.69	5.69
Cedro Amargo	*Cedrela odorata*	3x4	833	3.42	3.42
Cocobolo	*Dalbergia retusa*	3x4	833	4.39	4.39
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	3.42	3.42
Roble	*Tabebuia rosea*	3x4	833	1.94	1.94
Teak	*Tectona grandis*	5x4	500	7.24	7.24
Mixta	*Mixta*	3x4	833	1.84	1.84
Total reforested				**30.58**	**30.58**
Protection area					2.65
Stream area					3.20
Infrastructure					2.00
Total Surface Area					**38.43**

Map of the Farm

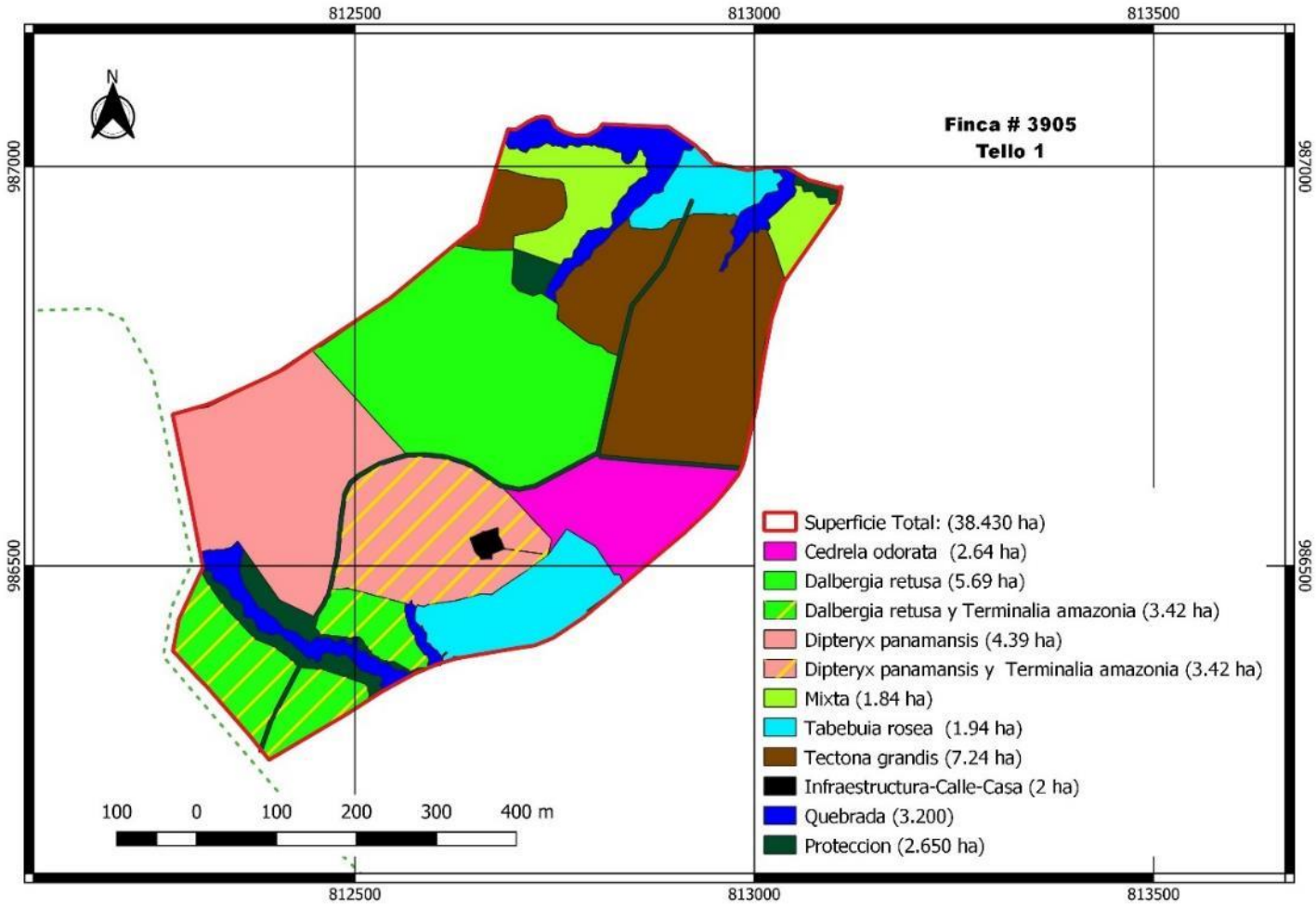


FIGURE 29. MAP OF THE FARM TELLO 1 (NO. 3905).

Table 38. Executed Annual Operation Plan 2023

Farm No. 3905 - Tello 1																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Fence maintenance	-	-	-	-	-	2	-	5	-	1	-	5	-	7	-	2	-	6	-	-	-	-	-	-	-	28
Manual weed control - cleaning	6	-	-	-	6	-	5	8	2	5	69	-	-	25	-	84	-	-	-	-	-	-	-	-	87	122
Organich Mulch	4	-	-	-	18	77	3	42	4	3	99	-	3	6	-	-	16	-	80	-	-	-	-	-	227	128
Manual weed control - maintenance slice	4	-	-	-	4	-	19	15	117	56	19	-	3	4	16	33	113	-	16	-	-	-	-	-	312	108
Weed control - mechanical - Güira	0	-	-	48	0	11	0	-	3	-	0	-	0	20	0	17	0	-	0	-	0	-	-	-	3	96
Replanted	0	-	-	-	0	-	0	-	6	-	0	-	0	22	0	30	0	36	0	-	0	-	0	-	8	88
Weed Control - Strip Cleaning	-	-	-	-	-	-	-	-	78	17	-	-	21	-	-	43	-	-	-	3	-	-	-	-	98	63
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	12
Construction of internal roads	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Cleaning and maintenance of infrastructure	-	1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Tractor driver	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Supervision	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
CPC- Fires-maintaining fire break rounds	-	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38
Formation pruning	-	4	-	-	23	4	-	2	-	8	-	6	56	20	-	6	-	-	34	1	-	-	-	-	112	51
CPC- Fire surveillance	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2

Manual phytosanitary control - Leaf-cutter ants	0	-	-	-	1	1	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	0	-	12	1
Phytosanitary-chemical control -Hypsipyla grandella	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	12
Manual phytosanitary control - Hypsipyla grandella	-	4	-	14	-	9	-	12	-	6	-	1	-	9	-	11	-	-	-	5	-	10	-	-	-	81
Contractor Supervision	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Contingencies	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Weed control - chemical slice	47	-	-	-	3	-	3	-	50	19	3	-	3	-	3	-	49	-	3	-	0	-	-	-	164	19
Chemical weed control - spraying of plots of land	32	-	-	-	-	-	-	-	32	26	-	-	-	-	-	-	32	-	-	-	-	-	-	-	97	26
Weed control - chemical - Knapsack Pump	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	9
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	3
Manual Weed Control - Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Contingencies	-	-	-	-	-	-	-	-	-	2	-	3	-	10	-	-	-	-	-	-	-	-	-	-	-	15
Grand total	**13**	**44**	**-**	**52**	**28**	**90**	**28**	**70**	**210**	**82**	**188**	**5**	**27**	**84**	**16**	**221**	**130**	**42**	**96**	**3**	**0**	**-**	**0**	**-**	**1,120**	**916**

5.2.20. Farm No. 313219 Tello 2

Reforestation summary

Table 39. Categorization of reforested areas.

Farm No. 313219 - Tello 2					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2023	
Almendro	*Dipteryx panamensis*	3x4	833	1.74	1.74
Amarillo Guayaquil	*Centrolobium yavizanum*	3x4	833	1.00	1.00
Caoba	*Swietenia macrophylla*	3x4	833	1.70	1.70
Cedro Amargo	*Cedrela odorata*	3x4	833	0.42	0.42
Cocobolo	*Dalbergia retusa*	3x4	833	1.76	1.76
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	3.01	3.01
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	3.27	3.27
Total reforested				**12.90**	**12.90**
Protection area					4.42
Stream area					1.51
Total Surface Area					**18.83**

Map of the Farm

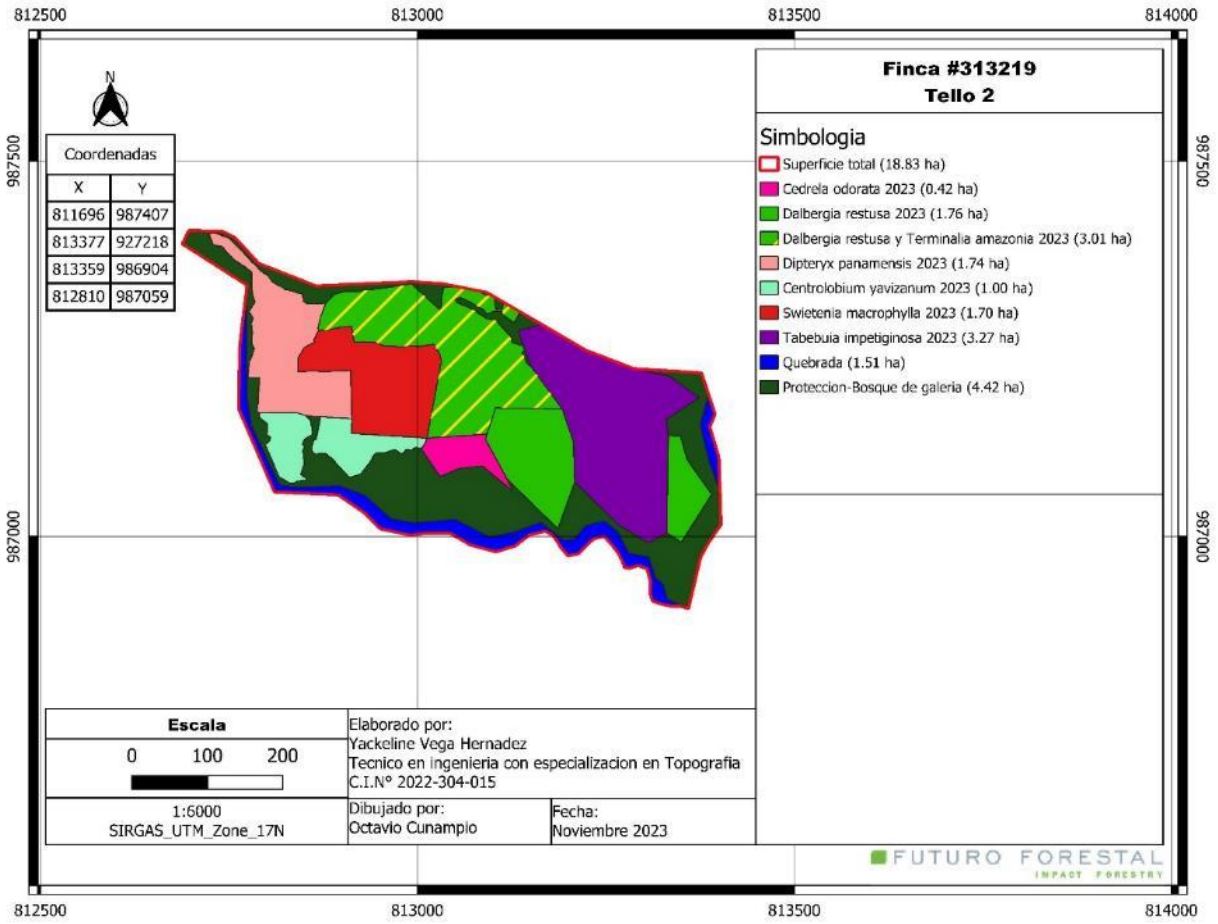


FIGURE 30. MAP OF THE FARM TELLO 2 (NO. 313219).

Preliminary plantation mortality 2023

The preliminary mortality result is relatively low in relation to the number of seedlings reforested at the farm.

Name of the farm	Farm No.	Species	Scientific Name	Alive Quantity	Dead Quantity	Total Quantity	% Mortality
Tello N°2	**313219**	Almendro	*Dipteryx panamensis*	58	26	84	31%
		Amarillo	*Terminalia amazonia*	164	4	168	2%
		Caoba	*Swietenia macrophylla*	96	16	112	14%
		Cocobolo	*Dalbergia retusa*	244	8	252	3%
		Guayacán morado	*Tabebuia impetiginosa*	48	8	56	14%
Total, average				**610**	**62**	**672**	**13%**

Table 40. Executed annual Operation Plan 2023

Farm No. 313219 - Tello 2																										
DESCRIPTION	**January**		**Februar y**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed Control - Strip Cleaning	-	-	-	-	-	-	-	-	-	-	5	-	54	-	59	-	54	-	43	12	-	-	-	-	215	12
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	2	-	-	-	-	-	-	-	18
Chainsaw Operator	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Construction of fences	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	5
Strip clearing- cutting beacons	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	21
Manual Planting	-	-	-	-	-	-	-	-	1	-	10	-	31	-	34	50	31	-	10	-	-	-	-	-	117	50
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	-	-	-	-	-	-	-	4
Weed Control-Chemicals in Strip	-	-	-	-	-	-	-	-	-	-	-	-	13	-	23	4	21	-	22	-	21	-	-	-	100	4
Weed control- manual cleaning	-	-	130	-	80	71	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	210	74
Assistant Chainsaw Operator	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Weed control-Chemical-Motobomb	-	-	-	-	-	-	-	-	-	17	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Marking Staking	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Formation pruning	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	7
Weed control – establishment slices	-	-	-	-	-	-	-	-	75	-	-	-	-	5	-	114	-	19	-	-	-	-	-	-	75	138
Replanted	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	-	-	-	-	-	-	-	4
Grand Total	**-**	**-**	**130**	**-**	**80**	**81**	**-**	**-**	**76**	**17**	**16**	**41**	**98**	**17**	**116**	**189**	**106**	**27**	**75**	**12**	**21**	**-**	**-**	**-**	**717**	**384**

5.2.21. Farm No. 3123 Tello 3

Reforestation summary

Table 41. Categorization of reforested areas.

Farm No. 3123 - Tello 3					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2023	
Caoba	*Swietenia macrophylla*	3x4	833	1.08	1.08
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	4.59	4.59
Roble	*Tabebuia rosea*	3x4	833	2.32	2.32
Teak	*Tectona grandis*	5x4	500	5.66	5.66
Total reforested				**13.65**	**13.65**
Protection area					2.14
Stream area					1.00
Artificial lake					0.50
Downslope areas					2.00
Total Surface Area					**19.29**

Map of the Farm

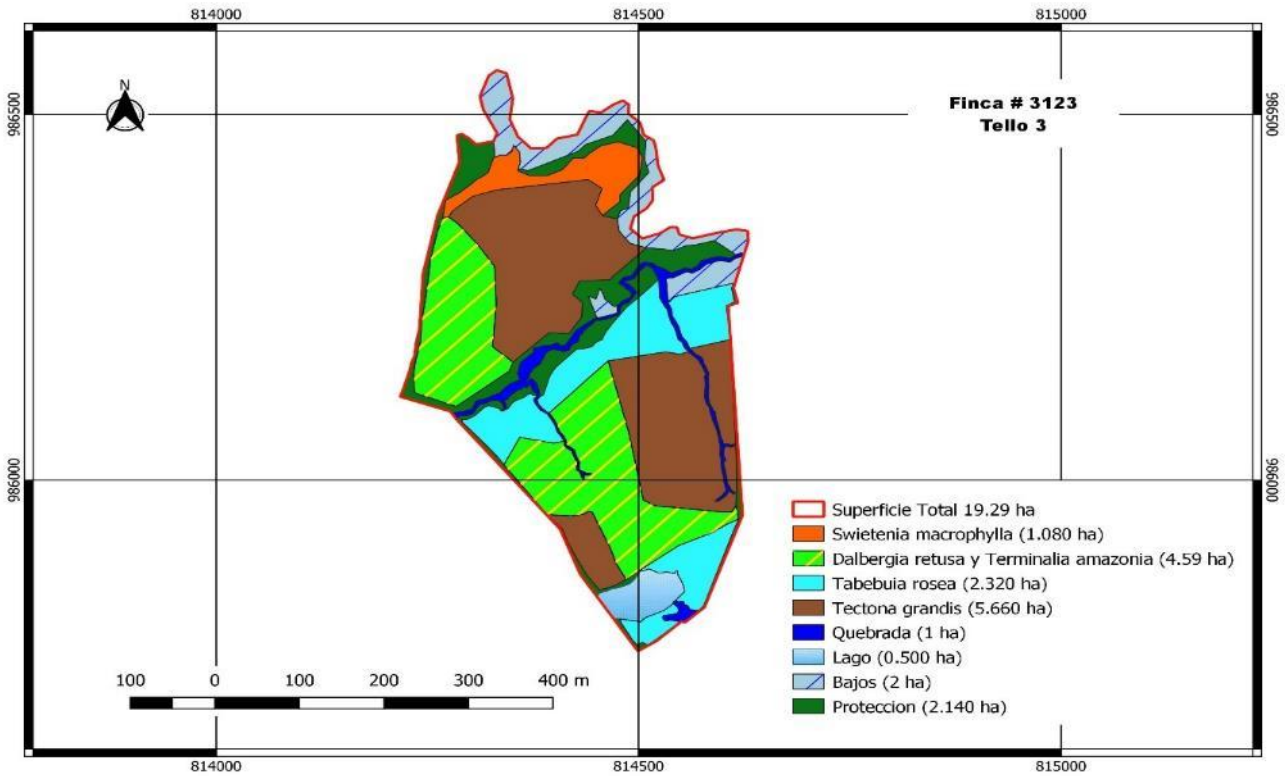


FIGURE 31. MAP OF THE FARM TELLO 3 (NO. 3123).

Table 42. Executed Annual Operation Plan 2023

Farm No. 3123 - Tello 3																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual weed control - maintenance slice	-	-	-	-	-	12	58	35	-	12	-	-	-	2	-	-	58	-	-	-	-	-	-	-	116	61
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	21	-	93	-	-	-	-	-	4	-	20	-	35	-	-	-	173
CPC- Fires-maintenance of fire break rounds	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Weed control manual - Liana Cutting	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	9
Supervision	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Organic Mulch	-	-	-	-	-	63	-	44	58	-	-	-	-	-	-	-	-	-	-	-	58	-	-	-	116	107
Weed control manual-cleaning	-	4	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	-	-	-	-	-	-	48	4
CPC Fires-fire break round estabishment	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Phytosanitary control-Chemical-Hypsipyla grandella	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Manual phytosanitary control - Hypsipyla grandella	-	10	-	-	-	1	-	3	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	16
Formation pruning	-	-	-	-	14	10	-	6	-	-	-	-	14	10	-	-	-	-	-	-	-	-	-	-	28	26
Fence maintenance	-	-	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	5
CPC-Fire Survaillance	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Fence construction	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Grand Total	**-**	**17**	**-**	**12**	**14**	**91**	**58**	**93**	**58**	**35**	**-**	**93**	**14**	**16**	**48**	**-**	**58**	**9**	**-**	**20**	**58**	**35**	**-**	**-**	**308**	**421**

5.2.22. Farm No. 30418636 Elia Castillo

Reforestation summary

Table 43. Categorization of reforested areas.

Farm No. 30418636 - Elia Castillo					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2023	
Almendro	*Dipteryx panamensis*	3x4	833	4.73	4.64
Caoba	*Swietenia macrophylla*	3x4	833	3.15	3.24
Cocobolo	*Dalbergia retusa*	3x4	833	6.37	6.42
Ron Ron	*Astronium graveolens*	3x4	833	1.57	1.52
Total reforested				**15.82**	**15.82**
Protection area					6.76
Stream area					1.40
Infrastructure					0.25
Fire Breaks					0.77
Total Surface Area					**25.00**

Map of the Farm

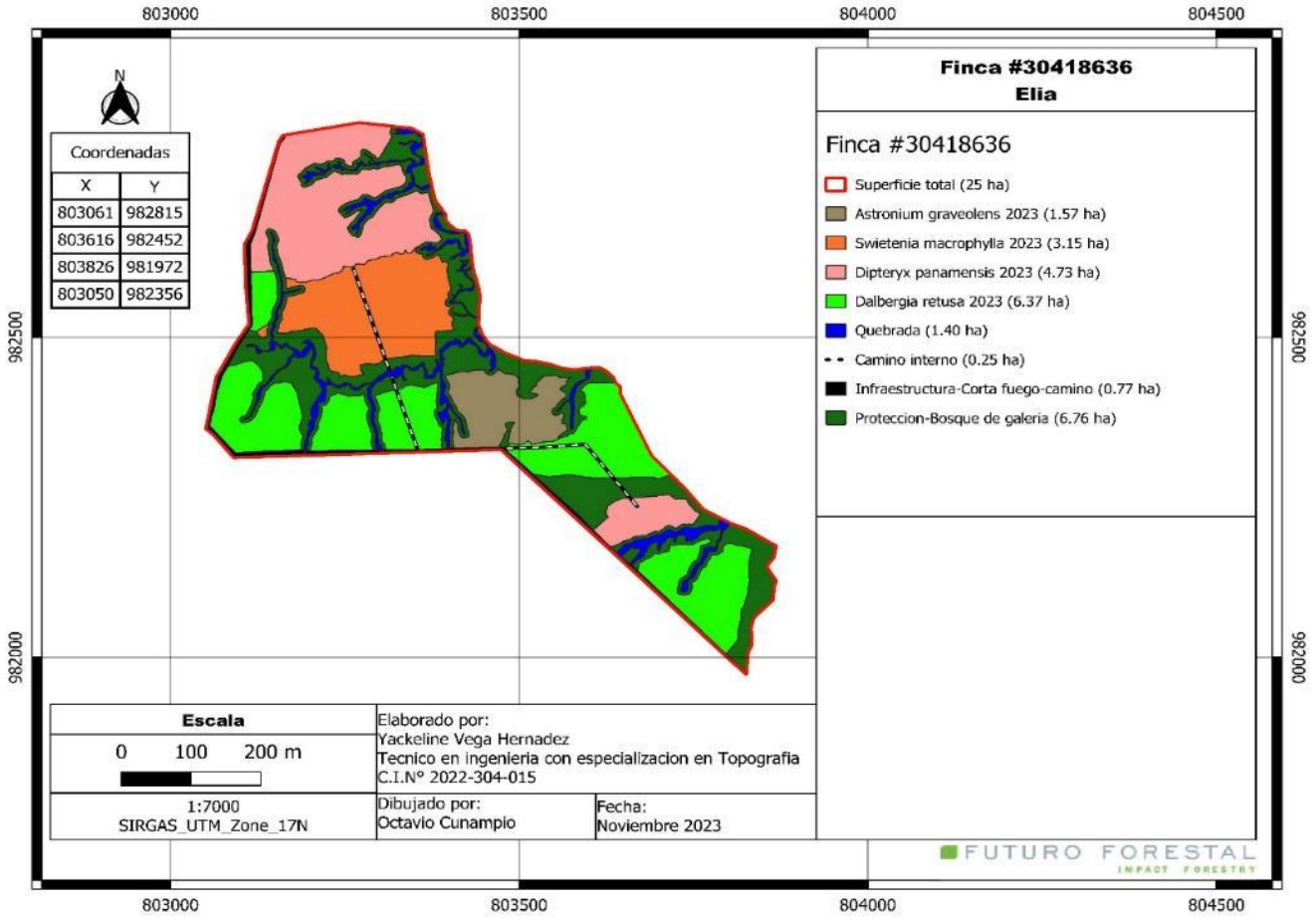


FIGURE 32. MAP OF THE FINCA ELIA CASTILLO (NO. 30418636).

Mortalidad preliminar del plantado 2023

Based on the reforestation, the percentage of total preliminary mortality is low for all species reforested on this farm.

Table 44. Planting mortality.

Nombre de la Farm	Número de la Farm	Especie	Scientific name	Quantity Alive	Quantity Dead	Total Quantity	% Mortalidad
Elia Castillo	**30418636**	Almendro	*Dipteryx panamensis*	278	2	280	1%
		Guayacán morado	*Tabebuia impetiginosa*	27	1	28	4%
		Caoba	*Swietenia macrophylla*	138	2	140	1%
		Cedro Amargo	*Cedrela odorata*	27	1	28	4%
		Cocobolo	*Dalbergia retusa*	497	7	504	1%
		Ron Ron	*Astronium graveolens*	106	3	109	3%
Total, average				**1073**	**16**	**1089**	**2%**

5.2.23. Farm No. 6276 Uri

Reforestation summary

Table 45. Categorization of reforested areas.

Farm No. 6276 - Uri					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2023	
Almendro	*Dipteryx panamensis*	3x4	833	2.08	2.08
Caoba	*Swietenia macrophylla*	3x4	833	0.95	0.95
Cedro Amargo	*Cedrela odorata*	3x4	833	1.72	1.72
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	3.67	3.67
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	2.68	2.68
Roble	*Tabebuia rosea*	3x4	833	1.16	1.16
Total reforested				**12.26**	**12.26**
Protection area					2.62
Stream area					1.60
Infrastructure					0.18
Fire break					0.15
Total Surface Area					**16.81**

Map of the Farm

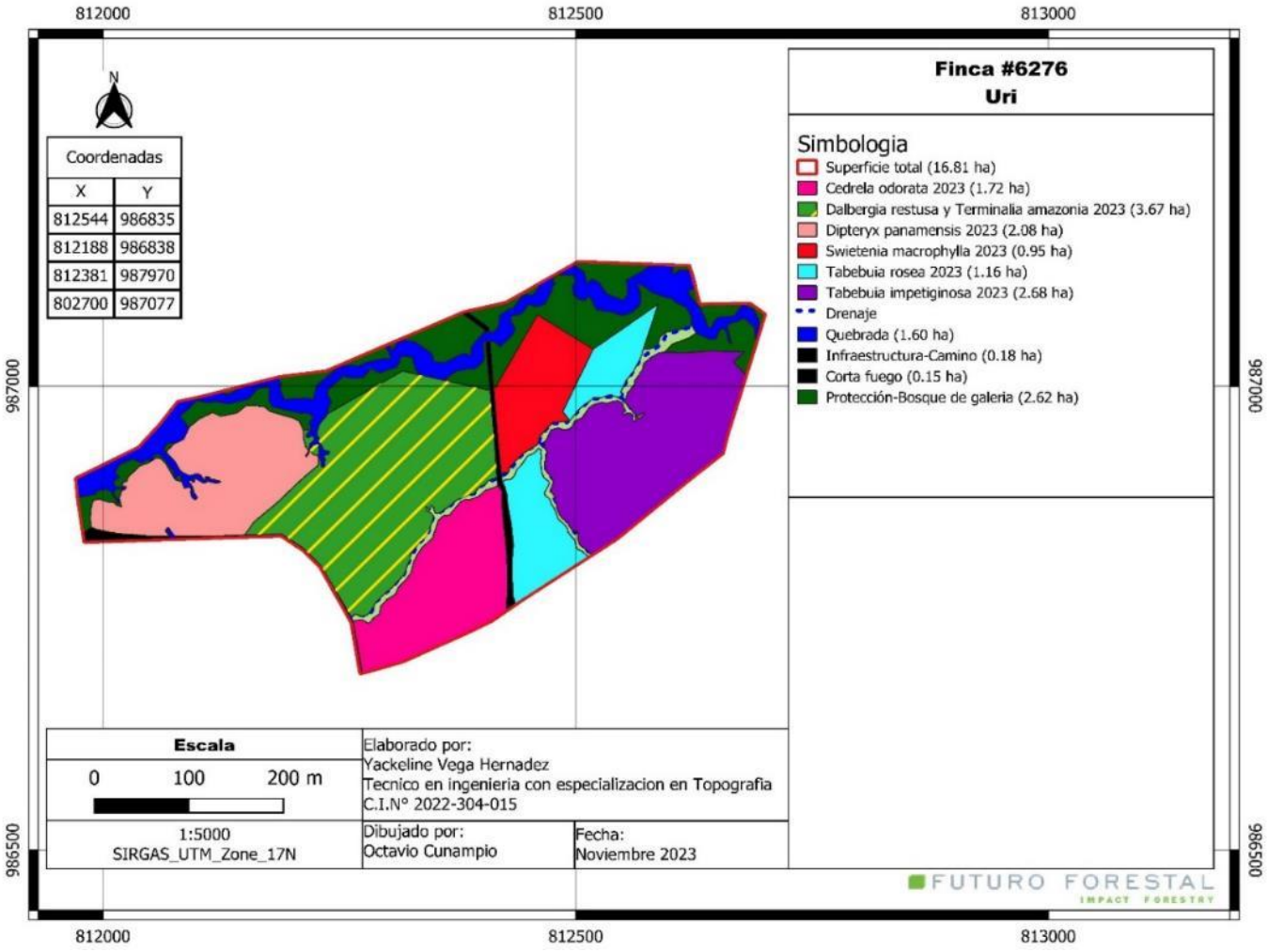


FIGURE 33. MAP OF THE FARM URI (NO. 6276).

Preliminary Plantation Mortality 2023

Based on the reforestation, the total preliminary mortality rate (3%) is low for all species reforested on this farm.

Table 46. Planting mortality.

Nombre de la Farm	Número de la Farm	Especie	Scientific name	Quantity Alive	Quantity Dead	Total Quantity	% Mortalidad
Uri	**6276**	Caoba	*Swietenia macrophylla*	110	2	112	2%
		Caoba y Roble	*Swietenia macrophylla - Tabebuia rosea*	28	0	28	0%
		Cedro Amargo	*Cedrela odorata*	28	0	28	0%
		Cocobolo y Amarillo	*Dalbergia retusa - Terminalia amazonia*	28	0	28	0%
		Guayacán morado	*Tabebuia impetiginosa*	188	8	196	4%
		Roble	*Tabebuia rosea*	24	4	28	14%
Total, average				**406**	**14**	**420**	**3%**

Table 47. Executed Annual Operation Plan 2023

FARM No. 6276 URI																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	5
Manual Planting	-	-	-	-	-	-	-	-	-	-	-	-	255	-	-	37	-	-	-	-	-	-	-	-	255	37
Construction of fences	-	-	-	-	-	-	-	-	-	-	-	5	-	7	-	-	-	-	-	-	-	-	-	-	-	12
Fence maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	8	-	4	-	-	-	-	-	16
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Phytosanitary control - leaf-cutter ants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	-	-	-	8
Weed control - slices of establishment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Manual phytosanitary control - Leaf-cutter ants	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	5	-	5	-	-	4	10
Manual weed control – slices of maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	2
Weed control - mechnaical - Güira	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68	-	19	-	-	-	87
Grand Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4**	**5.00**	**255**	**7.00**	**-**	**54.00**	**-**	**8.00**	**-**	**83.00**	**-**	**24.00**	**-**	**-**	**259**	**181.00**

5.2.24. Farm No. 30394427 Clamades

Reforestation summary

Table 48. Categorization of reforested areas.

Farm No. 30394427 - Clamades					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2023	
Almendro	*Dipteryx panamensis*	3x4	833	1.68	1.68
Amarillo	*Tectona grandis*	3x4	833	6.58	6.58
Bálsamo	*Myroxylon balsamum*	3x4	833	0.63	0.63
Caoba	*Swietenia macrophylla*	3x4	833	3.81	3.81
Cedro Amargo	*Cedrela odorata*	3x4	833	1.73	1.73
Cocobolo	*Dalbergia retusa*	3x4	833	15.55	15.55
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	3.53	3.53
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	1.00	1.00
Roble	*Tabebuia rosea*	3x4	833	5.39	5.39
Total reforested				**39.90**	**39.90**
Area to plant					9.93
Protection area					2.16
Stream area					3.50
Infrastructure					2.11
Total Surface Area					**57.60**

Map of the Farm

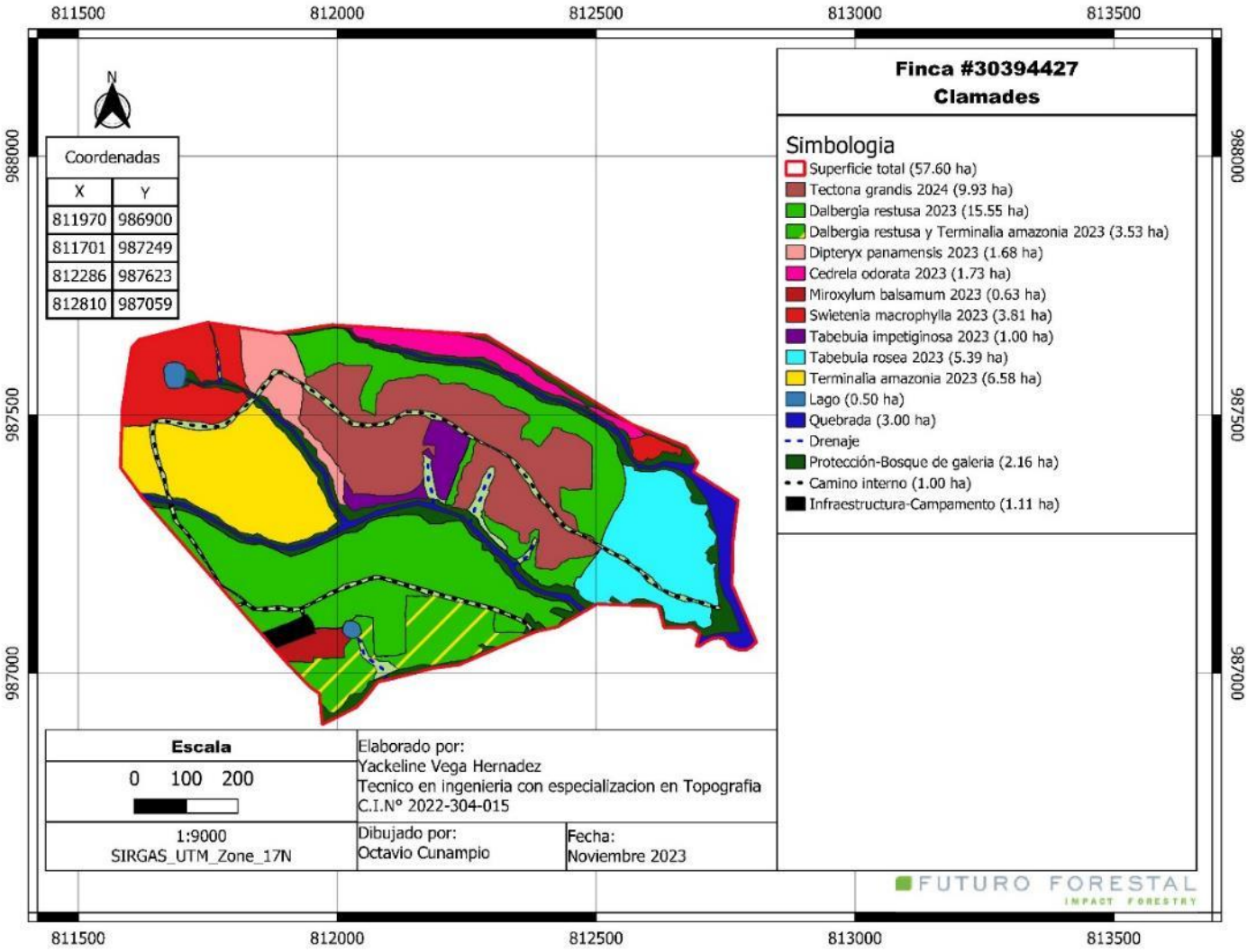


FIGURE 34. MAP OF THE FINCA CLAMADES (NO. 30394427).

Preliminary Planting Mortality 2023

Preliminary mortality on this farm was low for most of the reforested species, reflecting an overall average of 3%.

Table 49. Planting mortality.

Nombre de la Farm	Número de la Farm	Especie	Scientific name	Quantity Alive	Quantity Dead	Total Quantity	% Mortalidad
Clamades	**30394427**	Almendro	*Dipteryx panamensis*	28	0	28	0%
		Amarillo	*Terminalia amazonia*	246	4	250	2%
		Caoba	*Swietenia macrophylla*	111	1	112	1%
		Cedro Amargo	*Cedrela odorata*	131	10	141	7%
		Cocobolo	*Dalbergia retusa*	791	21	812	3%
		Cocobolo y Amarillo	*Dalbergia retusa - Terminalia amazonia*	242	10	252	4%
		Guayacán morado	*Tabebuia impetiginosa*	83	1	84	1%
		Roble	*Tabebuia rosea*	160	8	168	5%
Total, averge				**1792**	**55**	**1847**	**3%**

6. Executed Annual Operation Plan 2023

Farm No. 30394427 - Clamades																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual weed control - maintenance slice	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	215	1	-	-	-	-	215	3
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	-	86	-	254	-	232	-	109	196	-	87	-	-	680	283
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	11
Manual phytosanitary control - Leaf-cutter ants	-	-	-	-	-	-	-	-	-	-	6	-	26	-	28	-	26	-	27	8	27	4	25	-	166	12
Chainsaw operator	-	-	-	5	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Chainsaw operator assistant	-	-	-	5	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Construction of fences	-	-	-	-	-	6	-	-	-	6	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	19
Contractor Supervision	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Marking with Staking	-	-	-	-	-	-	-	-	-	10	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	30
GPS surveying	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Strip clearing- cut of markings	-	-	-	-	-	-	-	-	-	-	-	8	-	8	-	-	-	-	-	-	-	-	-	-	-	16
Strip clearing -balize	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3
Manual Planting	-	-	-	-	-	-	-	-	40	-	241	-	167	162	-	30	-	46	-	-	-	-	-	-	447	238
Phytosanitary control - leaf-cutter ants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	8	-	3	-	-	-	-	-	27
Weed control – establishement slices	-	-	-	-	-	-	-	-	255	-	-	-	-	-	-	-	-	39	-	33	-	-	-	-	255	72
Fence maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4
Grand Total	**-**	**-**	**-**	**10**	**-**	**12**	**-**	**2**	**295**	**17**	**247**	**16**	**278**	**195**	**282**	**46**	**258**	**106**	**351**	**241**	**27**	**95**	**25**	**-**	**1,763**	**740**

6.2.7. Farm No. 6087 Teófilo Herrera

Reforestation summary

Table 50. Categorization of reforested areas.

Farm No. 6087 - Teófilo Herrera					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2022	
Almendro	*Dipteryx panamensis*	3x4	833	1.35	1.35
Caoba	*Swietenia macrophylla*	3x4	833	0.30	0.30
Cedro Amargo	*Cedrela odorata*	3x4	833	12.93	12.93
Cocobolo	*Dalbergia retusa*	3x4	833	5.40	5.40
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	1.43	1.43
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	3.78	3.78
Roble	*Tabebuia rosea*	3x4	833	7.80	7.80
Teak	*Tectona grandis*	5x4	500	0.97	0.97
Total reforested				**33.96**	**33.96**
Protection area					7.77
Stream area					1.80
Total Surface Area					**43.53**

Map of the Farm

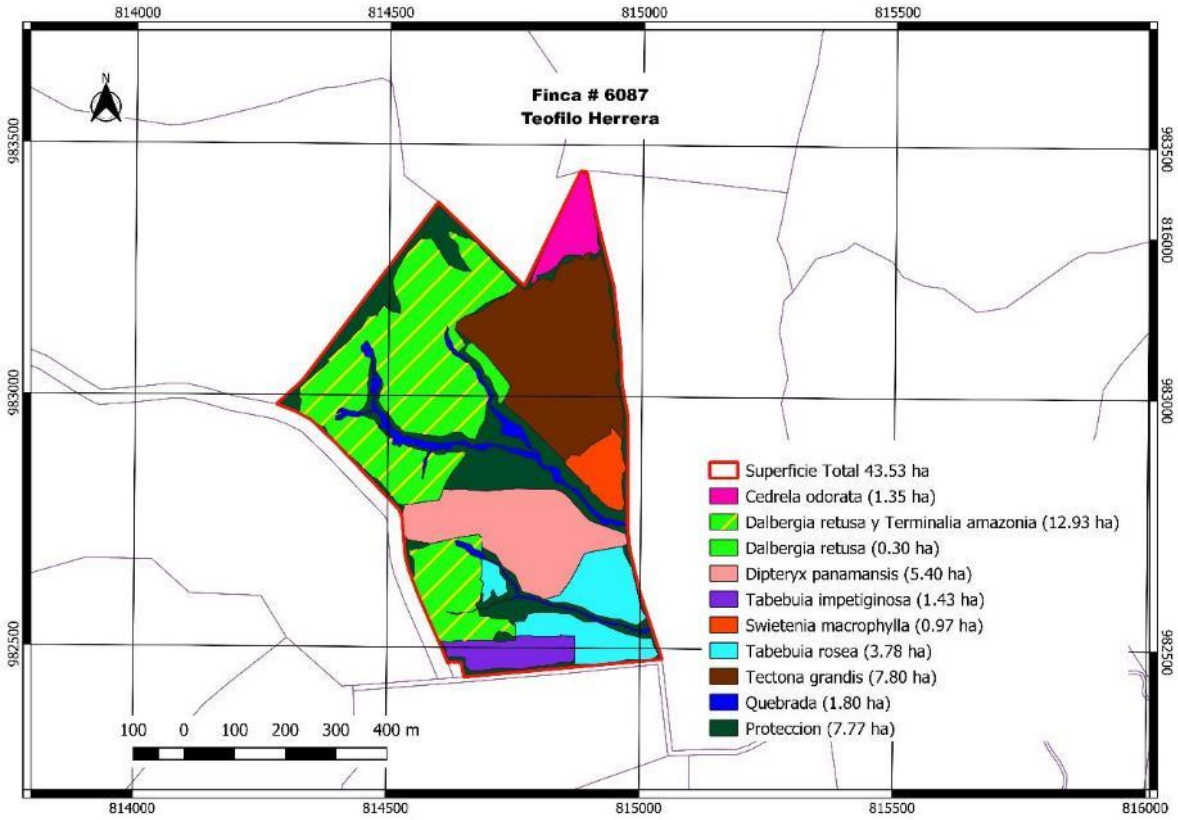


Figure 35. Map of the Farm Teófilo Herrera (No. 6087).

Table 51. Executed Annual Operation Plan 2023

Farm No. 6087 - Teófilo Herrera																								
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual weed control - maintenance slices	7	-	110	95	25	32	6	-	7	-	103	104	32	21	7	49	7	1	7	-	4	-	-	-	314	302
Organic Mulch	7	-	-	-	7	-	127	111	7	-	7	5	7	-	128	-	7	-	7	-	4	-	-	-	308	116
Weed control manual-cleaning	5	-	-	-	5	-	4	-	5	-	161	76	4	14	5	29	4	25	4	-	3	-	-	-	199	144
Replanted	-	-	-	-	-	-	-	-	-	-	16	-	-	81	-	43	-	36	-	-	-	-	-	-	16	160
CPC Fires-establishment of fire break rounds	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Manual phytosanitary control -leaf-cutter ants	1	-	-	-	1	1	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	-	-	13	1
Weed control-Strip Cleaning	-	-	-	114	-	4	-	-	-	-	-	-	-	-	-	129	-	7	-	-	-	-	-	-	-	254
Supervision	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	25
Contractor Supervision	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Weed control-Chemical – in Strips	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81	-	-	-	-	-	-	-	81
Maintenance of internal roads	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Weed control-mechanical-Güira	0	-	-	12	7	42	0	-	0	-	0	28	0	3	0	35	0	-	0	-	0	-	-	-	8	120

Fence maintenance	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
CPC- Fires surveillance	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Formation pruning	2	-	-	-	2	-	7	5	2	-	2	-	1	-	2	-	1	1	2	-	1	-	-	-	21	6
Contingencies	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
#N/D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weed control manual – Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	11
Grand Total	**21**	**-**	**110**	**253.00**	**46**	**83.00**	**146**	**125.00**	**22**	**-**	**290**	**213.00**	**45**	**119.00**	**143**	**285.00**	**20**	**182.00**	**21**	**-**	**13**	**-**	**-**	**-**	**879**	**1,260.00**

6.2.8. Farm No. 30359853 Dalys García (La Esperanza)

Reforestation summary

Table 52. Categorization of reforested areas.

Farm No. 30359853 - Dalys García					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	6.93	6.93
Caoba	*Swietenia macrophylla*	3x5	834	1.15	1.15
Roble	*Tabebuia rosea*	3x4	833	5.46	5.46
Total reforested				**13.54**	**13.54**
Protection area					2.24
Stream area					0.23
Artificial Lake					0.10
Infrastructure					0.16
Total Surface Area					**16.27**

Map of the Farm

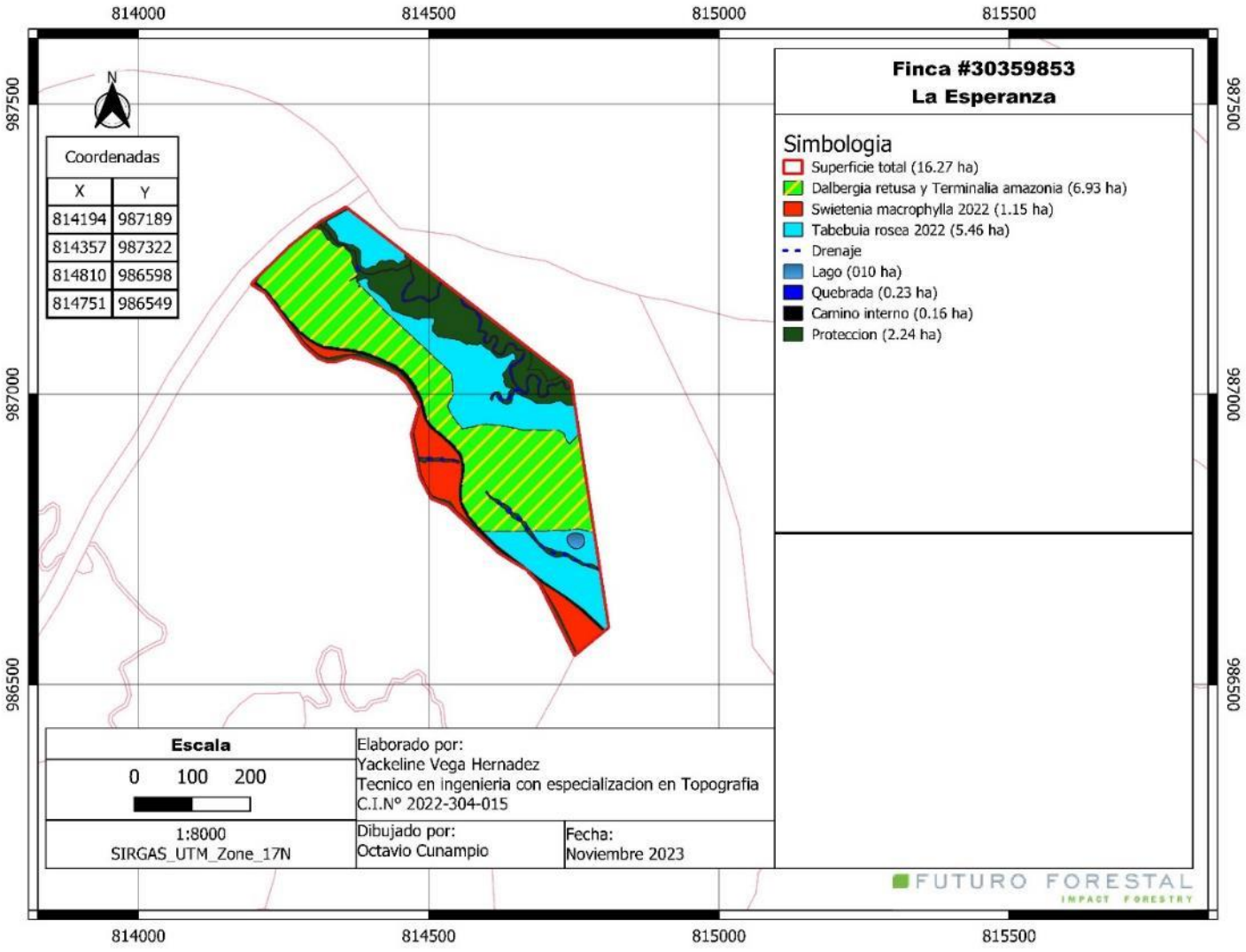


FIGURE 36. MAP OF THE FARM LA ESPERANZA (NO. 30359853).

Table 53. Executed Annual Operation Plan 2023

Farm No. 30359853 - Dalys García																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Fence maintenance	-	-	-	-	-	-	-	-	-	4	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Weed control manual-cleaning	-	-	-	-	-	12	-	-	41	-	7	-	31	-	-	-	-	-	-	-	-	-	-	-	79	12
Organic Mulch	-	-	-	-	-	-	37	50	-	-	-	-	-	-	37	-	-	-	-	-	-	-	-	-	74	50
Manual weed control - maintenance slice	-	-	-	43	37	27	-	23	24	9	37	-	24	24	-	15	-	30	-	1	-	-	-	-	122	172
Weed control - mecánico - Güira	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	10	-	27	-	-	-	-	-	-	3	37
Replanted	-	-	-	-	-	-	-	-	3	-	-	-	-	7	-	-	-	8	-	-	-	-	-	-	3	15
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	44
Weed control-Chemical in strip	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	16
Supervision	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
CPC- Fires-maintainanace of fire break rounds	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Manual phytosanitary control - Hypsipyla grandella	-	-	-	-	-	-	-	-	-	1	-	2	-	2	1	2	-	-	-	-	-	-	-	-	1	7
Weed control manual – Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5
Weed control manual-maintenance slices	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Control of slices-chemical slice	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Manual phytosanitary control - leaf-cutter ants	-	-	-	-	0	1	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	4	1
Maintenance of external roads	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	3
Maintenance of internal roads	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Grand Total	**-**	**27.00**	**-**	**44.00**	**37**	**40.00**	**39**	**73.00**	**70**	**41.00**	**44**	**4.00**	**55**	**33.00**	**38**	**27.00**	**0**	**93.00**	**0**	**17.00**	**0**	**-**	**0**	**-**	**286**	**399.00**

6.2.9. Farm No. 30358742 Maite García (La Esperanza)

Reforestation summary

Table 54. Categorization of reforested areas.

Farm 30358742 - Maite García					
Species planted		**Inicial dist. (m)**	**Tree/ha**	**Planting year**	**Reforested area/ species (ha)**
Common name	**Scientific name**			**2022**	
Caoba	*Swietenia macrophylla*	3x4	833	0.83	0.83
Cativo	*Prioria copaifera*	3x4	833	0.38	0.38
Cocobolo	*Dalbergia retusa*	3x4	833	1.84	1.84
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	1.98	1.98
Cocobolo y Laurel	*Dalbergia retusa* y *Cordia alliodora*	3x4	833	2.12	2.12
Teak	*Tectona grandis*	4x5	500	4.00	4.00
Total reforested				**11.15**	**11.15**
Protection area					4.86
Stream area					0.26
Internal road					0.17
Total Surface Area					**16.44**

Map of the Farm

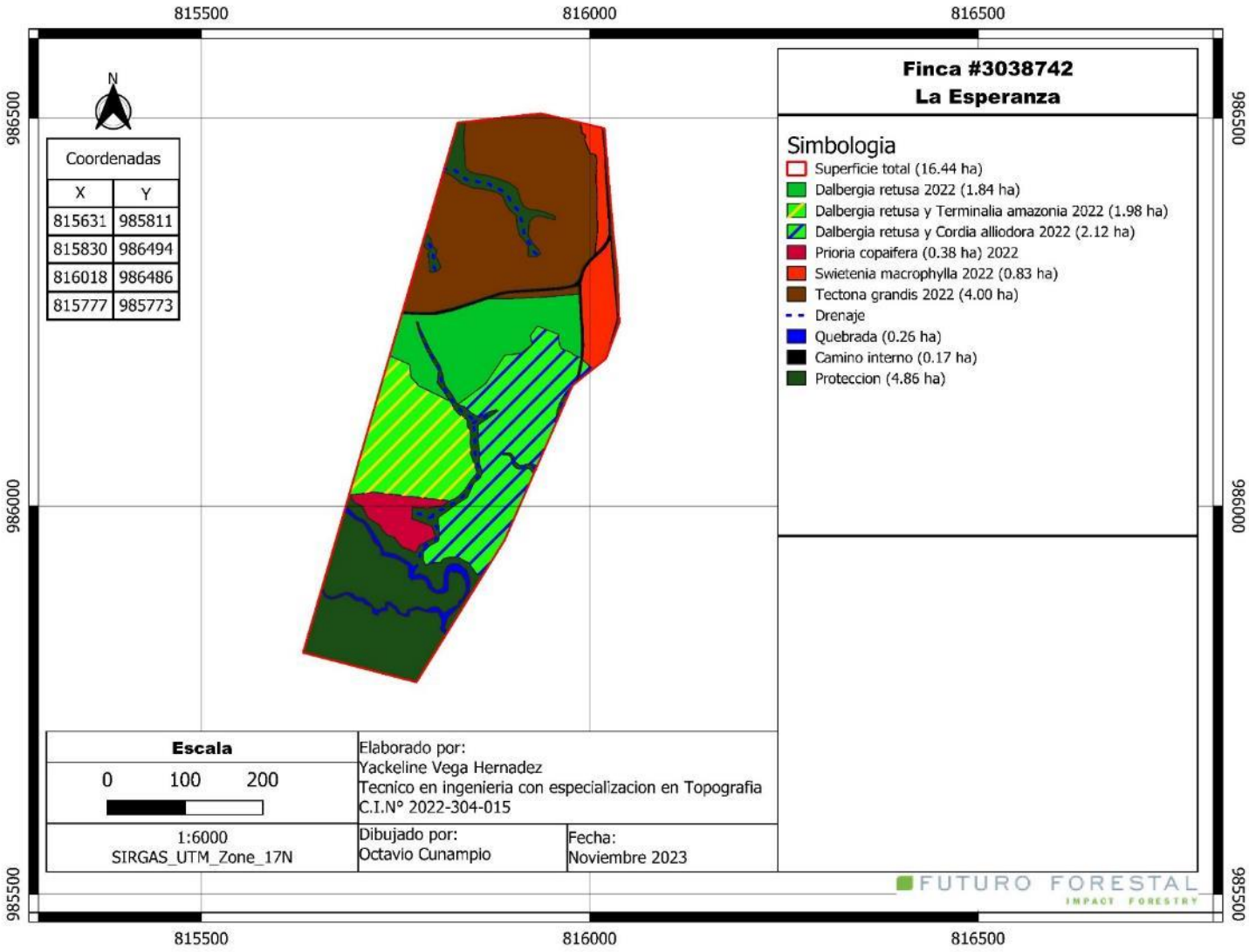


FIGURE 37. MAP OF THE FARM LA ESPERANZA (NO. 30358742).

6.2.10. Farm No. 30358613 Maite García (La Esperanza)

Reforestation summary

Table 55. Categorization of reforested areas.

Farm No. 30358613 - Maite García					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Caoba	*Swietenia macrophylla*	3x4	833	0.18	0.18
Cativo	*Prioria copaifera*	3x4	833	1.32	1.32
Cativo y Espavé	*Prioria copaifera y Anacardium excelsum*	3x4	833	0.40	0.40
Cativo y Roble	*Prioria copaifera y Tabebuia rosea*	3x4	833	2.52	2.52
Cedro Amargo	*Cedrela odorata*	3x4	833	0.40	0.40
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	1.91	1.91
Espavé	*Anacardium excelsum*	3x4	833	2.32	2.32
Guayacán Morado	*Tabebuia Impetiginosa*	3x4	833	2.24	2.24
Roble	*Tabebuia rosea*	3x4	833	0.80	0.80
Total reforested				**12.09**	**12.09**
Protection area					3.31
Stream area					0.41
Artificial lake					0.13
Infrastructure					0.27
Internal roads					0.17
Total Surface Area					**16.38**

Map of the Farm

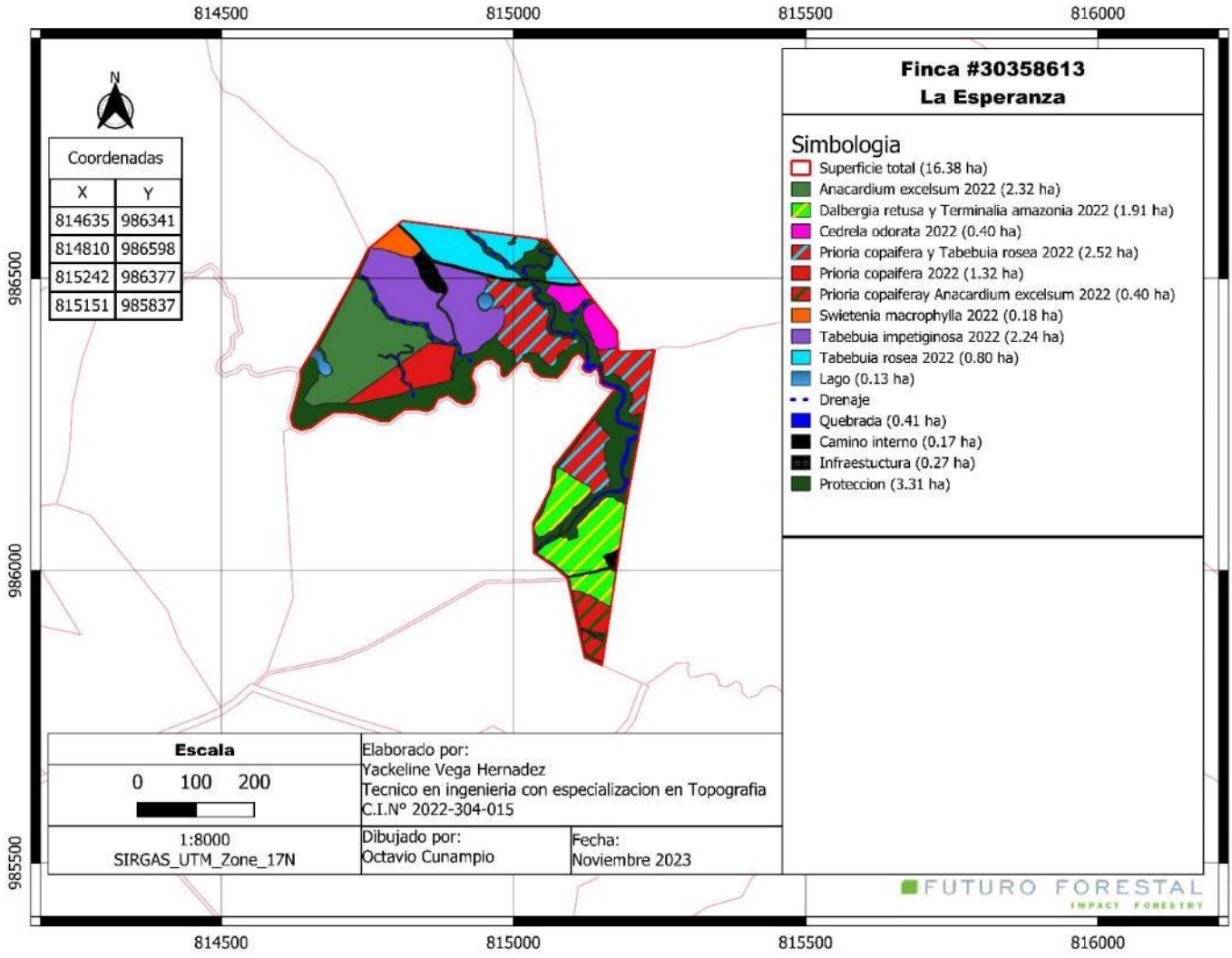


FIGURE 38. MAP OF THE FARM LA ESPERANZA (NO. 30358613).

Table 56. Executed Annual Operation Plan 2023

Farm No. 30358613 - Maite García																								
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Organic Mulch	-	-	-	-	-	-	-	19	52	-	-	-	-	-	52	-	-	-	-	-	-	-	-	-	104	19
Manual weed control - maintenance slice	-	-	-	31	-	14	52	33	-	14	-	33	52	20	-	42	-	9	-	10	-	-	-	-	104	206
Replanted	0	-	-	-	0	-	0	-	2	-	0	18	0	8	0	10	0	5	0	-	0	-	0	-	2	41
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	42	-	-	-	-	-	-	-	23	-	2	-	-	-	-	-	67
Weed control-Chemical in Strips	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	14
Supervision	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
CPC- Fires-maintenance of fire break rounds	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Manual phytosanitary control - Hypsipyla grandella	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	0	1
Weed control manual-maintenance of slices	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Control of slices-chemical slice	-	17	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	17

Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	1	-	-	-	-	-	-	-	4
Tractor driver	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Contingency	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Marking by Staking	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Manual phytosanitary control I - Leaf-cutter ants	-	-	-	-	0	-	0	-	0	-	2	-	0	2	0	-	0	-	0	-	0	-	0	-	5	2
Chemical-phytosanitary control Hypsipyla grandella	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	10
Grand Total	**0**	**38.00**	**-**	**32.00**	**0**	**15.00**	**53**	**52.00**	**55**	**56.00**	**2**	**58.00**	**53**	**33.00**	**53**	**53.00**	**0**	**48.00**	**0**	**26.00**	**0**	**-**	**0**	**-**	**217**	**411.00**

6.2.11. Farm No. 30359110 Edilberta García (La Esperanza)

Reforestation summary

Table 57. Categorization of reforested areas.

Farm 30359110 - Edilberta García						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Cativo y Espavé	*Prioria copaifera y Anacardium excelsum*	3x4	833	1.18		1.18
Cedro Amargo	*Cedrela odorata*	3x4	833	0.40		0.40
Cocobolo	*Dalbergia retusa*	3x4	833	0.38		0.38
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	3.71	0.21	3.92
Roble y Cativo	*Tabebuia rosea y Prioria copaifera*	3x4	833	6.07		6.07
Total reforested				**11.74**	**0.21**	**11.95**
Protection area						4.01
Stream area						0.36
Infrastructure						0.04
Internal roads						0.13
Total Surface Area						**16.49**

Map of the Farm

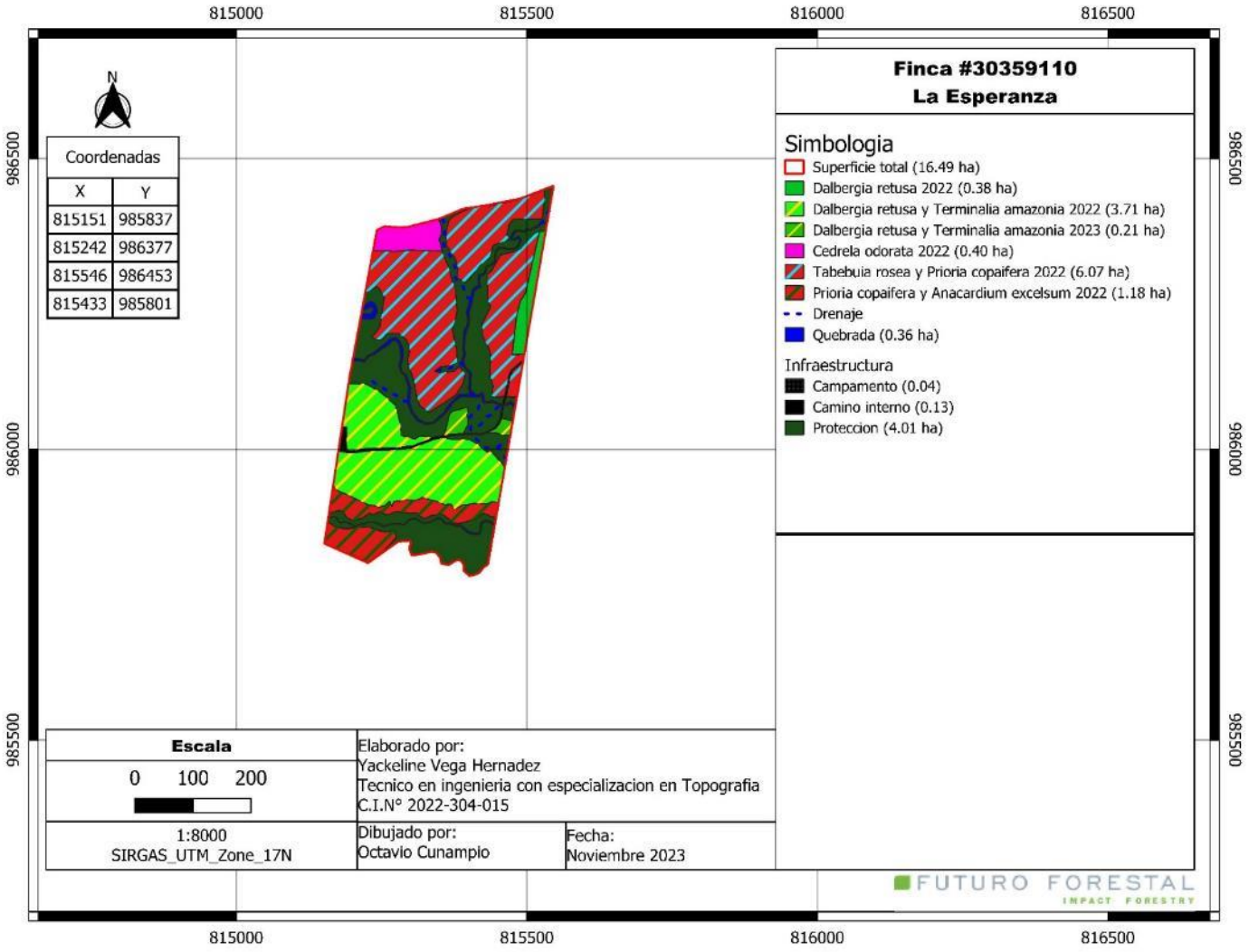


FIGURE 39. MAP OF THE FARM LA ESPERANZA (NO. 30359110).

Table 58. Executed Annual Operation Plan 2023

Farm No. 30359110 - Edilberta García																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Replanted	-	-	-	-	-	-	-	-	6	-	-	9	-	-	-	7	-	5	-	-	-	-	-	-	6	21
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	7	-	31	-	-	-	-	-	-	-	55
CPC- Fires-maintenance of fire break rounds	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Manual phytosanitary control - Hypsipyla grandella	-	-	-	-	-	5	-	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	8
Manual weed control – maintenance of slices	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Control of slice-chemical slice	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Weed control manual-maintenence of slice	-	-	-	38	-	31	45	24	-	23	-	18	45	9	-	21	-	15	-	-	-	-	-	-	91	179
Manual phytosanitary control - Leaf-cutter ants	-	-	-	-	2	-	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	3	1
CPC-Fire Surveilance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weed control manual-cleaning	-	-	-	-	-	-	-	-	-	-	-	4	59	-	-	-	-	-	-	-	-	-	-	-	59	4
Weed control manual – Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Road maintenance External	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Chemical weed control - plot fumigation	-	1	-	-	-	-	-	-	29	-	-	-	-	-	29	-	-	-	-	-	29	-	-	-	88	1
Cleaning and maintenance of infrastructure	-	3	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	7
Supervision	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Organic Mulch	-	-	-	-	-	6	-	4	45	-	-	-	-	-	45	-	-	-	-	-	-	-	-	-	91	10
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	2	-	-	-	-	-	-	-	-	-	7
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Weed control - chemical- Backpack Pump	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Phytosanitary control -Chemical-Hypsipyla grandella	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	11
Weed control-Chemical in Strips	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	15
Grand Total	-	**22**	-	**40**	**2**	**44**	**47**	**30**	**80**	**42**	-	**42**	**104**	**11**	**75**	**44**	-	**60**	-	**15**	**29**	-	-	-	**337**	**350**

6.2.12. Farm No. 30359029 Bélgica García (La Esperanza)

Reforestation summary

Table 59. Categorization of reforested areas.

Farm No. 30359029 - Bélgica García						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	4.31		4.31
Cocobolo y Laurel	*Dalbergia retusa* y *Cordia alliodora*	3x4	833	3.16	6.17	9.33
Laurel	*Cordia alliodora*	3x4	833	0.45		0.45
Total reforested				**7.92**	**6.17**	**14.09**
Protection area						2.20
Stream area						0.18
Internal roads						0.12
Total Surface Area						**16.59**

Map of the Farm

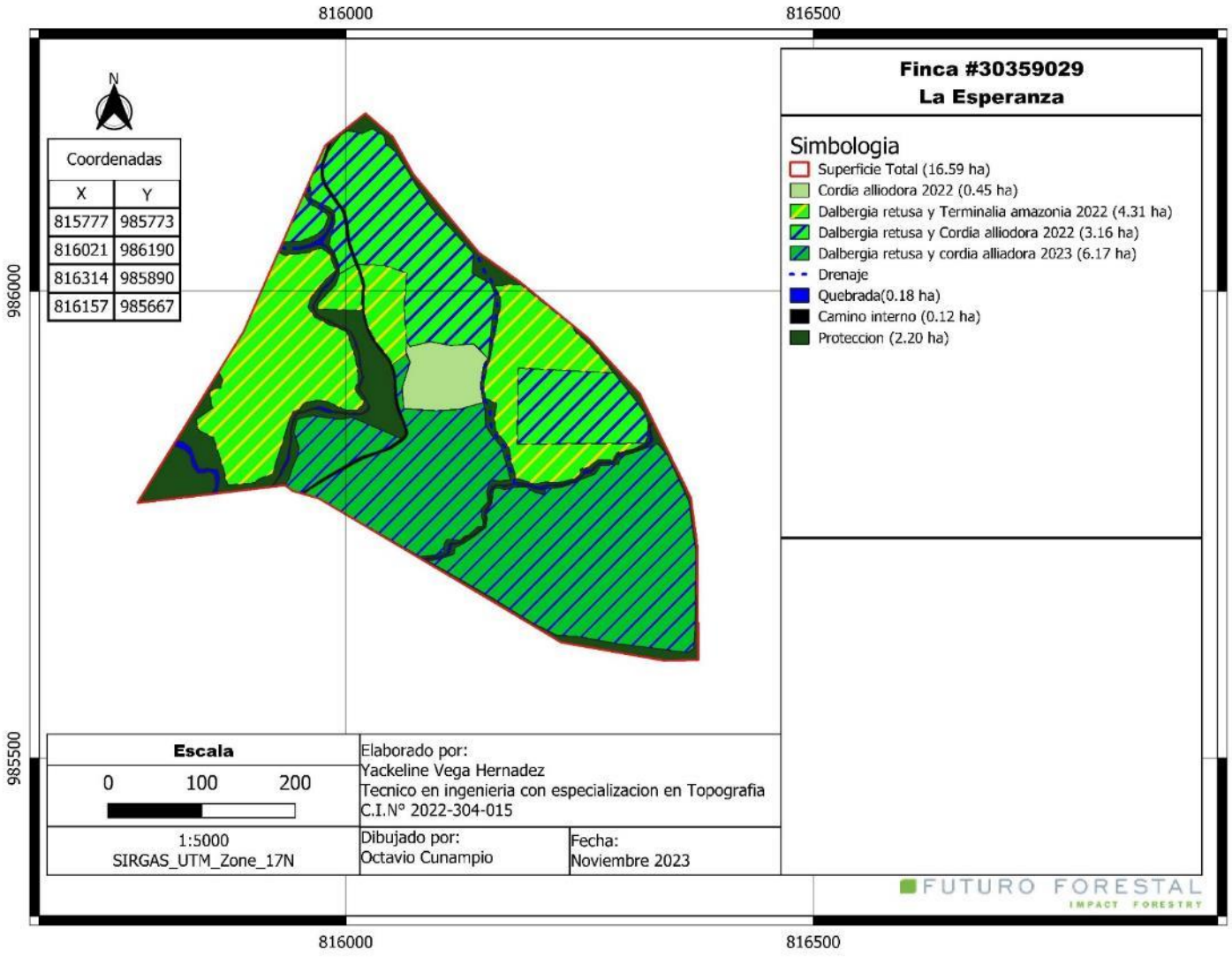


FIGURE 40. MAP OF THE FARM LA ESPERANZA (NO. 30359029).

Table 60. Executed Annual Operation Plan 2023

Farm No. 30359029 - Bélgica García																								
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Manual weed control - maintenance slice	-	-	-	36	-	-	34	51	-	-	-	-	34	33	-	-	-	-	-	-	-	-	-	-	67	120
Replanted	-	-	-	-	-	-	-	-	2	-	-	-	-	20	-	4	-	-	-	-	-	-	-	-	2	24
Weed control-Strip Cleaning	-	-	-	14	-	-	-	-	-	6	-	6	-	19	-	52	-	15	-	53	-	-	-	-	-	165
CPC- Fires-maintenance of fire break rounds	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Weed control manual-slice for maintenence	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Control de slice-chemical slice	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Manual phytosanitary control - Leaf-cutter ants	-	-	-	1	1	1	1	1	1	-	1	-	1	-	1	-	1	-	-	-	-	-	-	-	4	3
Weed control manual – Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Road maintenance External	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Supervision	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	7
Organic Mulch	-	-	-	-	-	20	-	-	34	4	-	-	-	-	34	-	-	-	-	-	-	-	-	-	67	24
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	8
Plant Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2

Strip clearing - balize	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Strip clearing- cut of markings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Strip clearing	-	-	-	-	-	-	-	-	-	144	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	160
Clearance	-	-	-	-	-	-	-	-	-	-	-	2	-	16	-	-	-	-	-	-	-	-	-	-	-	18
Weed control- Chemical- Motobomb	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Weed control - fumigation assistant	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Manual Plantinf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	-	-	-	-	-	-	-	-	-	44
Weed control - Mechanical - Güira	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	2	10
Grand Total	**-**	**19.00**	**-**	**51.00**	**3**	**21.00**	**34**	**52.00**	**36**	**168.00**	**1**	**25.00**	**34**	**88.00**	**34**	**138.00**	**1**	**15.00**	**-**	**60.00**	**-**	**-**	**-**	**-**	**142**	**637.00**

6.2.13. Farm No. 1962 Miguel García (La Esperanza)

Reforestation summary

Table 61. Categorization of reforested areas

Farm No. 1962 - Miguel García						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Almendro	*Dipteryx panamensis*	3x4	833	6.09	1.05	7.14
Caoba	*Swietenia macrophylla*	3x4	833	1.66		1.66
Cedro Amargo	*Cedrela odorata*	3x4	833	2.12		2.12
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	0.70		0.70
Roble	*Tabebuia rosea*	3x4	833	1.20	0.52	1.72
Teak	*Tectona grandis*	4x5	500	21.08		21.08
Total reforested				**32.85**	**1.57**	**34.42**
Protection area						17.21
Stream area						0.52
Artificial lake						0.20
Internal road						0.48
Total Surface Area						**52.83**

Map of the Farm

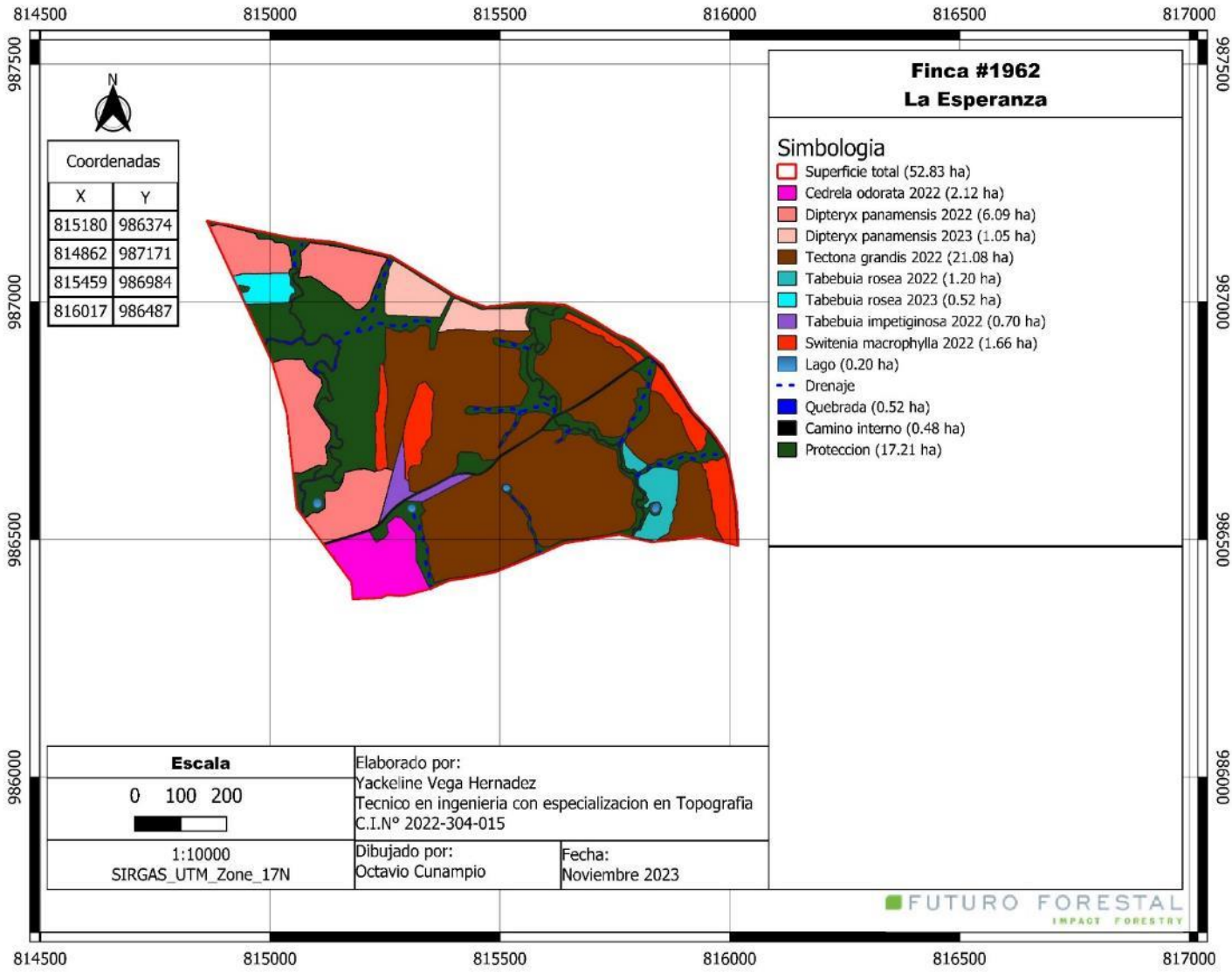


FIGURE 41. MAP OF THE FARM LA ESPERANZA (NO. 1962).

Table 62. Executed Annual Operation Plan 2023

Farm No. 1962 - Miguel García																												
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Organic Mulch	-	-	-	-	-	-	-	57	-	-	-	-	-	-	-	-	-	-	4	-	8	-	-	-	12	57
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	65	-	-	-	-	3	3	5	13	5	-	2	-	-	-	15	81
Weed control-Química en Franja	-	-	-	-	-	-	-	-	-	-	1	-	3	-	4	6	3	-	4	21	1	-	-	-	16	27
Supervision	-	8	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	18
Contingencies	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	8
Foliar fertilization	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Weed control - mechanical - Güira	-	-	-	-	-	6	-	44	-	10	-	4	-	87	-	27	-	-	-	15	-	-	-	-	-	193
Manual weed control - maintenance slice	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Control of slice-chemical slice	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
CPC- Fires-maintenance of	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14

fire break rounds																										
Formation prunning	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Weed control manual-slice for maintenence	-	-	-	101	-	52	-	21	-	34	-	28	-	45	-	42	-	70	5	9	7	-	-	-	12	402
Fence maintenance	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Contractor supervision	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Manual phytosanitary control - Hypsipyla grandella	-	-	-	-	-	8	-	3	-	7	-	3	-	8	-	8	-	3	-	4	-	5	-	-	-	49
Monitoring	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
CPC Fires-Fire Surveillance	-	-	-	1	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Phytosanitary control - Chemical-Hypsipyla grandella	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Manual phytosanitary control - Leaf-cutter ants	-	-	-	-	-	-	-	2	-	-	0	-	1	-	1	-	1	-	1	-	1	-	1	-	6	2
Cleaning and maintenance of infrastructure	-	-	-	1	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	3
Replanted	-	-	-	-	-	-	-	-	-	-	-	-	-	78	-	25	-	2	-	-	-	-	-	-	-	105
Weed control manual – Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	1	-	-	-	-	-	-	-	18
Weed control - químico-Backpack Pump	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4

Supervision	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Contingencies	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Grand Total	**-**	**41.00**	**-**	**112.00**	**-**	**76.00**	**-**	**136.38**	**-**	**117.00**	**2**	**35.00**	**4**	**232.00**	**7**	**132.00**	**9**	**90.00**	**19**	**49.00**	**19**	**5.00**	**1**	**-**	**61**	**1,025.38**

6.2.14. Farm No. 30359842 Cati García (La Esperanza)

Reforestation summary

Table 63. Categorization of reforested areas.

Farm No. 30359842 - Cati García						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Cativo y Espavé	*Prioria copaifera y Anacardium excelsum*	3x5	834	0.16		0.16
Cocobolo	*Dalbergia retusa*	3x4	833	1.84		1.84
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	1.24	1.08	2.32
Roble y Cativo	*Tabebuia rosea y Prioria copaifera*	3x4	833	2.27		2.27
Roble	*Tabebuia rosea*	3x4	833	0.92		0.92
Teak	*Tectona grandis*	4x5	500	2.43		2.43
Total reforested				**8.86**	**1.08**	**9.94**
Protection area						6.16
Stream area						0.28
Internal road						0.10
Total Surface Area						**16.48**

Map of the Farm

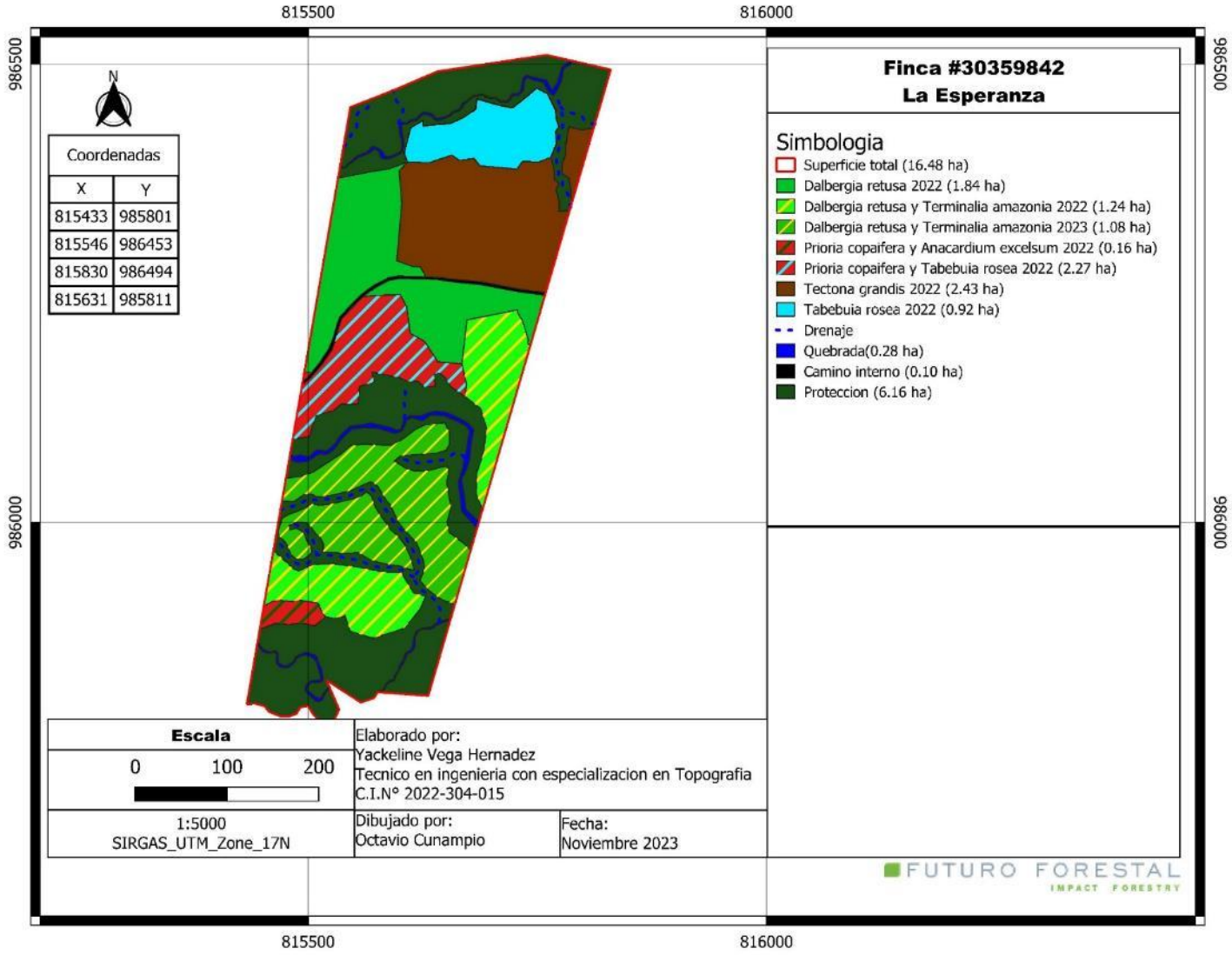


FIGURE 42. MAP OF THE FARM LA ESPERANZA (NO. 30359842).

Table 64. Executed Annual Operation Plan 2023

Farm No. 30359842 - Cati García																								
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Manual weed control - maintenance slice	-	-	-	51	-	-	36	67	-	-	-	11	36	13	-	-	-	-	-	2	-	8	-	-	72	152
Replanted	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	59	-	11	-	7	-	7	-	-	-	14	-	-	-	-	-	98
CPC- Fires-maintenance of fire break rounds	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
Manual phytosanitary control-Hypsipyla grandella	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	2	-	-	-	-	-	5
Weed control manual-slice de mantenimiento	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Control de slice-químico slice	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Manual phytosanitary control-Leaf-cutter ants	-	2	-	1	-	-	-	2	-	-	1	-	1	-	3	-	-	-	-	-	-	-	-	-	5	5
CPC-Fire Surveillance	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Weed control - manual-cleaning	-	-	-	-	-	12	-	-	-	-	-	-	28	-	-	11	-	-	-	-	-	-	-	-	28	23
Weed control - mechanical - Güira	-	-	-	-	1	12	-	25	-	5	-	-	-	14	-	-	-	-	-	17	0	-	-	-	1	73
Weed control - manual – Liana Cutting	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	4
Road maintenance External	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2
Grand Total	**-**	**32.00**	**-**	**53.00**	**1**	**24.00**	**36**	**93.63**	**1**	**64.63**	**1**	**24.00**	**65**	**34.00**	**3**	**23.00**	**-**	**2.00**	**-**	**35.00**	**0**	**8.00**	**-**	**-**	**107**	**393.25**

6.2.15. Farm No. 190400 David Fernández (Contenedores)

Reforestation summary

Table 65. Categorization of reforested areas.

Farm 190400 - David Fernández					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Cedro Amargo	*Cedrela odorata*	3x4	833	1.34	1.34
Almendro	*Dipteryx panamensis*	3x4	833	1.21	1.21
Bálsamo	*Myroxylon balsamum*	3x4	833	0.39	0.39
Cativo	*Prioria copaifera*	3x4	833	1.00	1.00
Caoba	*Swietenia macrophylla*	3x4	833	2.26	2.26
Cocobolo	*Dalbergia retusa*	3x4	833	5.59	5.59
Total reforested				**11.79**	**11.79**
Protection area					9.02
Drainage areas					0.20
Infrastructure					2.00
Road					0.84
Total Surface Area					**23.85**

Map of the Farm

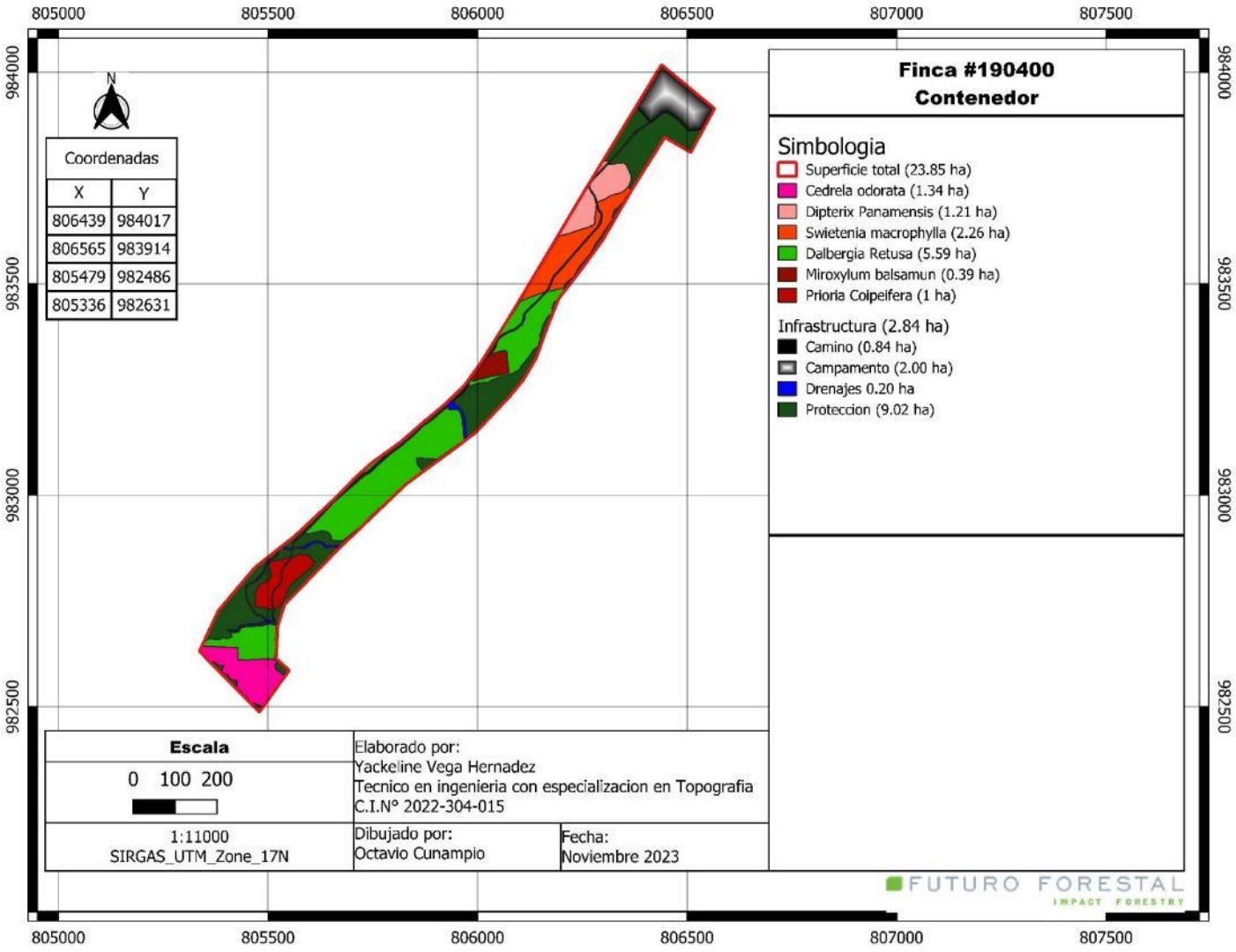


FIGURE 43. MAP OF THE FARM CONTENEDOR (NO. 190400).

6.2.16. Farm No. 190401 David Fernández (Contenedores)

Reforestation summary

Table 66. Categorization of reforested areas.

Farm No. 190401 - David Fernández					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2022	
Cedro Amargo	*Cedrela odorata*	3x4	833	0.92	0.92
Cocobolo	*Dalbergia retusa*	3x4	833	0.98	0.98
Total reforested				**1.90**	**1.90**
Protection area					0.26
Artificial lake					0.13
Total Surface Area					**2.29**

Map of the Farm

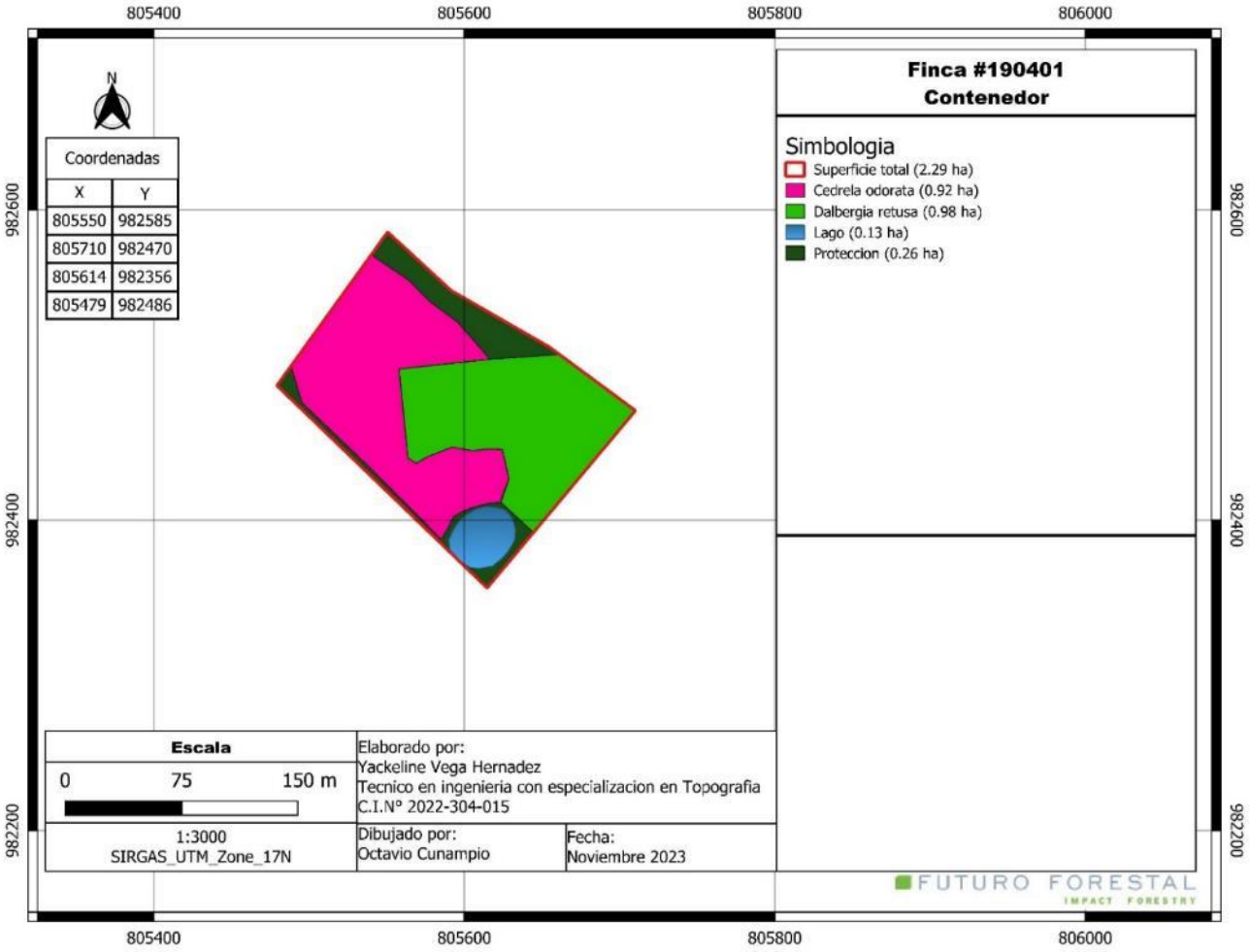


FIGURE 44. MAP OF THE FARM CONTENEDOR (NO. 190401).

6.2.17. Farm No. 190371 David Fernández (Contenedores)

Reforestation summary

Table 67. Categorization of reforested areas.

Farm 190371 - Contenedor					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Berbá	*Brossimum alicastrum*	3x3	833	0.37	0.37
Cocobolo	*Dalbergia retusa*	3x4	833	0.54	0.54
Bálsamo	*Myroxylon Balsamum*	3x4	833	1.18	1.18
Total reforested				**2.09**	**2.09**
Protection area					0.39
Total Surface Area					**2.48**

Map of the Farm

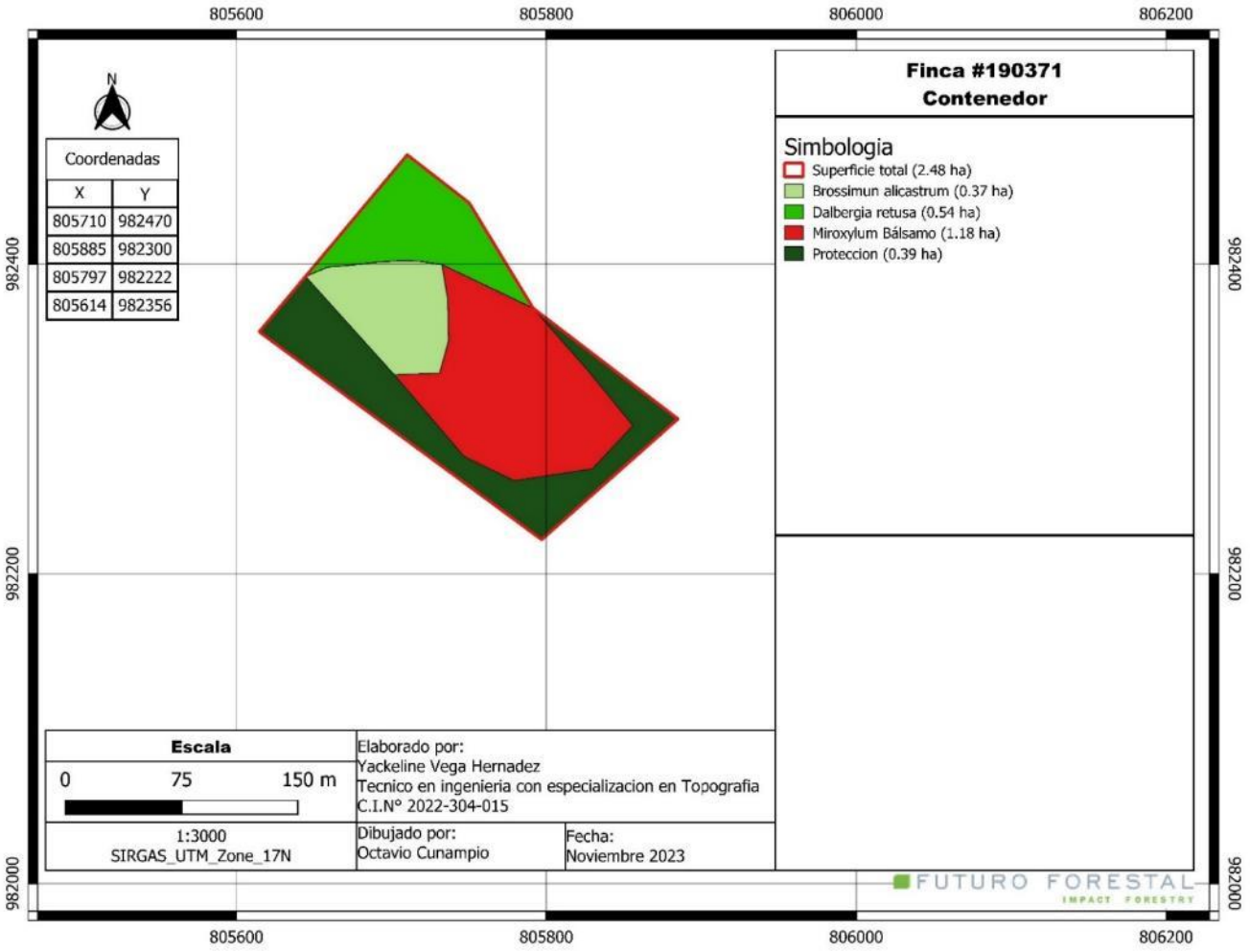


FIGURE 45. MAP OF THE FARM CONTENEDOR (NO. 190371).

Table 68. Executed Annual Operation Plan 2023

Contenedores																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Manual weed control - maintenance slice	-	-	-	20	46	39	-	13	-	33	-	-	46	59	-	-	-	-	-	-	-	-	-	-	92	164
Organic Mulch	-	-	-	-	-	-	3	-	43	18	-	-	-	-	-	-	46	-	-	-	-	-	-	-	92	18
Weed control manual-cleaning	-	-	-	-	1	-	191	130	17	-	-	-	-	-	-	-	-	-	-	-	361	-	-	-	571	130
Replanted	-	-	-	-	-	-	-	-	2	-	12	31	-	-	-	-	-	-	-	-	-	-	-	-	14	31
CPC- Fires-maintenance of fire break rounds	-	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38
CPC Fires-establishment of fire break rounds	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	23
Supervision	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Manual phytosanitary control- Leaf-cutter ants	1	-	-	1	1	1	1	-	1	-	1	2	1	-	1	-	1	-	1	-	0	-	0	-	6	4
CPC Fires-Fire Surveillance	-	-	-	-	-	2	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Clearance	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35
Foliar fertilization	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Contractor supervision	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chainsaw Operator	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Monitoring	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Fence maintenance	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Weed control-Chemical in strips	-	-	-	-	-	-	-	-	8	3	-	-	-	-	8	-	-	-	-	-	-	-	8	-	25	3
Mechanical planting	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Road maintenance External	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4
Grand Total	**1**	**41.00**	**-**	**23.00**	**48**	**79.00**	**195**	**167.00**	**71**	**60.00**	**13**	**35.00**	**46**	**59.00**	**9**	**27.00**	**46**	**-**	**1**	**-**	**362**	**-**	**8**	**-**	**800**	**491.00**

6.3. Lastenia unit

Description of development

Se maneja la regeneración natural en los sitios. In general, growth was within the expected range and the plantation developed well. As in the Claritas Unit, there is a higher than usual mortality, as a result of the "El Niño" phenomenon. In addition, the strategy of replacing some species in low sites that retain more humidity was applied. Roble (*Tabebuia rosea*), which tolerates higher humidity, was planted. Natural regeneration is managed in the sites.

Some cleaning and maintenance activities were affected in the last quarter of the year due to budget cuts and staff reductions. As a result, it was not possible to implement all the planned activities, and some were postponed until the beginning of 2024.

Pest attacks, diseases, or fires occurrences

It is important to mention that, to date, no fires have been reported in the plantations, due to the prevention measures implemented each summer (firebreak, personnel training and monitoring).

Similarly, no significant findings of diseases or pests affecting the plantations have been reported. Although there have been attacks of the Meliaceae borer (*Hypsipyla grandella*) in lots of cedar (*Cedrela odorata*) and mahogany (*Swietennia macrophylla*), manual-chemical controls and periodic monitoring of the plantation are carried out.

On the other hand, the presence of a fungus in the teak species, specifically in Farms Lastenia # 2 and 4, affecting the lower leaves of the tree, so constant monitoring and silvicultural management is maintained by keeping the plantation clean, weeding of shoots and affected leaves.

FIGURE 46. TEAK LEAF WITH FUNGI AND HYPSIPYLA GRANDELLA ATTACK IN CEDAR.

5.3.1. Farm No. 2453 Lastenia 1 (Gilberto Samaniego)

Reforestation summary

Table 69. Categorization of reforested areas.

Farm No. 2453 - Lastenia 1 (Gilberto Samaniego)					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Almendro	*Dipteryx panamensis*	3x4	833	0.87	0.87
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	2.70	2.70
Total, reforested				**3.57**	**3.57**
Area to plant					28.00
Protection area					1.48
Downslope areas					14.43
Stream area					2.00
Total Surface Area					**49.48**

Map of the Farm

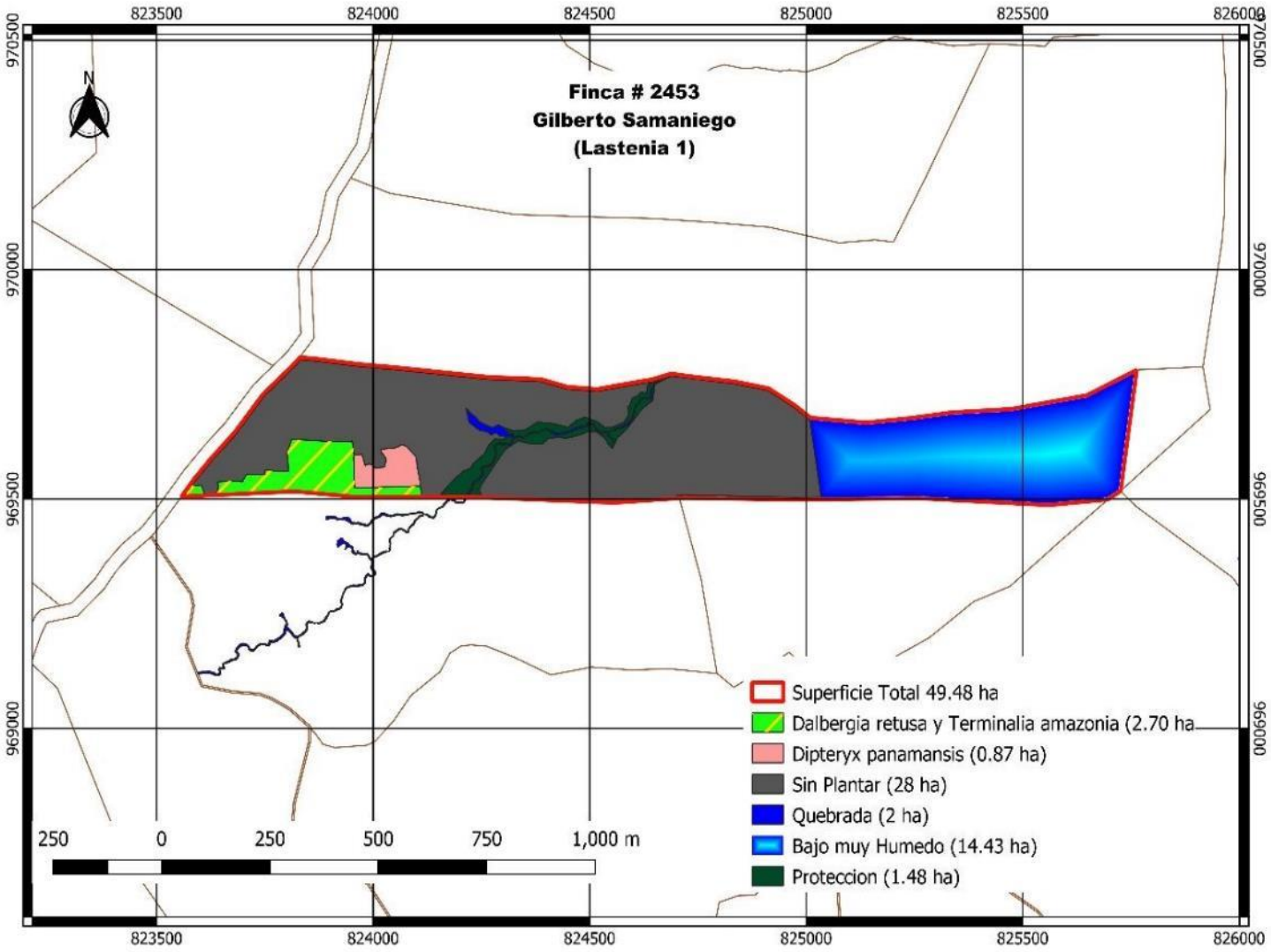


FIGURE 47. MAP OF THE FARM LASTENIA 1 (NO. 2453).

Table 70. Executed Annual Operation Plan 2023

Farm No. 2453 - Lastenia 1 (Gilberto Samaniego)																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed control - manual-cleaning	-	-	-	-	-	10	-	-	-	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120
Weed control - chemical-Backpack Pump	-	-	8	-	-	-	-	-	8	-	-	-	-	-	-	-	8	-	-	23	-	-	-	-	25	23
Manual weed control - maintenance slice	-	-	16	-	-	-	16	-	-	-	-	14	16	-	-	-	-	-	-	6	2	2	-	-	49	22
Weed control manual-cleaning	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	12	-	-	-	-	-	-	-	21
Weed control-Strip Cleaning	-	20	15	18	-	-	-	-	-	-	-	9	-	-	17	11	-	14	-	-	-	-	-	-	32	72
Control fitosanitario manual-leaf-cutter ants	-	-	3	-	1	-	1	-	3	-	1	-	1	-	1	-	1	-	1	-	3	-	3	-	14	-
Cleaning and maintenance of infrastructure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Replanted	-	-	-	-	-	-	-	-	-	-	303	-	-	-	-	-	-	12	-	-	-	-	-	-	303	12
Supervision	-	1	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Weed control-mechanical-Güira	-	-	5	20	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	20
CPC Fires-establishment of fire break rounds	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Weed control-Chemical in Strips	2	-	5	-	-	-	-	-	5	-	-	-	-	-	-	-	3	-	-	-	-	5	-	-	14	5
Limpieza de faja y rodaje	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Contractor Supervision	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Chainsaw Operator	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Assistant Chainsaw Operator	-	-	-	-	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79
Strip clearing - marking	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Strip clearing- cutting markings	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Grand Total	2	**23**	51	**44**	6	**14**	16	**-**	16	**203**	304	**39**	16	**9**	17	**11**	12	**40**	1	**29**	5	**7**	3	**-**	447	**419**

5.3.2. Farm No. 1284 Lastenia 1 (Gilberto Samaniego)

Reforestation summary

Table 71. Categorization of reforested areas.

Farm No. 1284 - Lastenia 1 (Gilberto Samaniego)					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Cedro Amargo	*Cedrela odorata*	3x4	833	3.34	3.34
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	17.00	17.00
Roble	*Tabebuia Rosea*	3x4	833	1.60	1.60
Teak	*Tectona grandis*	4x5	500	1.20	1.20
Total, reforested				**23.14**	**23.14**
Areas to plant					10.23
Protection area					5.96
Downslope areas					8.30
Stream areas					2.00
Total Surface Area					49.63

Map of the Farm

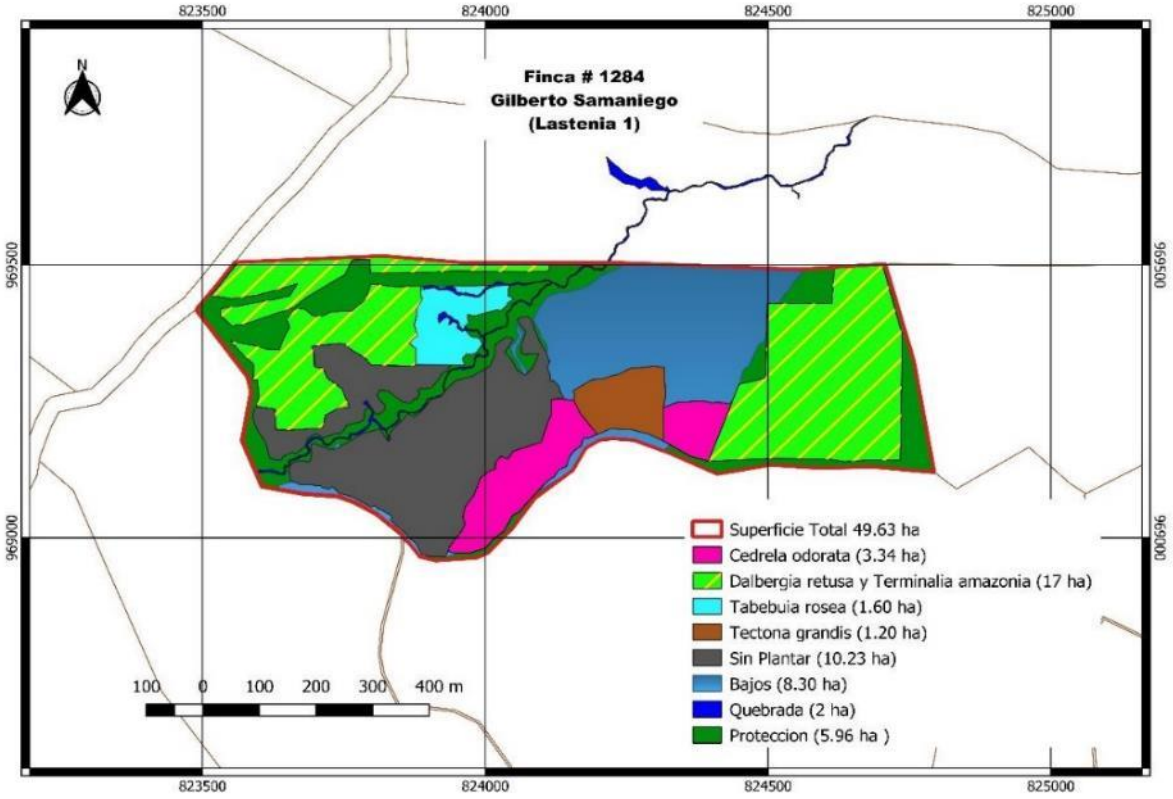


FIGURE 48. MAP OF THE FARM LASTENIA 1 (NO. 1284).

Planting Mortality 2022

Table 72. **THE MORTALITY REORT OF THE FARMS 1284/2453 ARE PRESENTED.**

Farm	N° Farm	Species	Mortality
Lastenia # 1 (Gilberto Samaniego)	1284/2453	Teak- *Tectona grandis*	0
		Cocobolo - *Dalbergia retusa*	1825
		Amarillo-*Terminalia amazonia*	3318
		Almendro-*Dipteryx panamensis*	749
		Cedro- *Cedrela odorata*	595
Total, average			**6,487**

All dead trees of the different forest species in the plantation were replaced. A total of 6,487 trees were replanted.

Table 73. Executed Annual Operation Plan 2023

Farm No. 1284 - Lastenia 1 (Gilberto Samaniego)																								
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Weed control - manual-cleaning	0	-	0	-	0	-	0	-	0	9.00	0	4.00	0	-	0	-	0	-	0	-	0	-	0	-	-	13
Weed control - chemical-Backpack Pump	21.9	-	72.62	-	0	-	0	-	74.34	-	0	-	0	-	0	-	52.93	-	0	31.00	0	-	0	-	222	31
Manual weed control – maintenance of slices	7.4	50.00	58.89	-	0	10.00	69.99	-	0	-	6.43	15.00	69.99	19.00	0	-	0	-	0	2.00	3.7	-	10.3	-	227	96
Weed control manual-cleaning	0	8.00	0	-	0	39.00	0	18.00	0	-	0	4.00	0	84.00	0	-	0	2.00	0	13.00	0	-	0	-	-	168
Weed control manual-slices of maintenence	0	14.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	14
Weed control-Strip Cleaning	7.2	4.00	0	7.00	9	-	0	-	0	-	6.43	92.00	0	2.00	72	-	0	58.00	0	-	0	-	0	-	95	163
Manual phytosanitary control -leaf-cutter ants	1	3.00	14.4	10.00	10.76	15.00	14.4	-	14.4	-	15.4	-	14.4	-	14.4	-	14.4	-	14.4	-	14.4	-	14.4	-	157	28
CPC-Fire Survaillance	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	-
Granular fertilization	0	-	0	-	0	-	0	-	1.2	-	123.37	32.00	0	-	0	-	0	-	0	-	0	-	0	-	125	32
Contingencies	0	-	0	-	0	-	0	-	0	-	0	3.00	0	-	0	-	0	-	0	-	0	-	0	-	-	3
Formation prunning	0	-	14	3.00	0	-	0	-	3.2	-	20.43	-	0	-	0	-	3.2	-	0	-	14	-	0	-	55	3
Replanted	1	-	0	-	0	-	0	-	0	-	10.3	-	0	-	0	-	0	26.00	0	-	0	-	0	-	11	26
Supervision	0	14.00	0	1.00	0	6.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	21
Processing of workers	0	-	0	-	0	-	0	1.00	0	17.00	0	14.00	0	19.00	0	26.00	0	46.00	0	26.00	0	-	0	-	-	149

Transfer of supplies	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	1.00	0	4.00	0	-	0	-	-	5
GPS Survey	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	-
Mechanical weed control	0	4.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	4
Weed control-mechanical-Güira	0	50.00	25	4.00	32	-	0	-	0	-	0	-	0	-	0	-	0	4.00	0	-	0	-	0	-	57	58
Cleaning and maintenance of infrastructure	0	-	0	3.00	0	4.00	0	-	0	-	0	-	0	-	0	-	0	-	0	2.00	0	-	0	-	-	9
Contingencies	0	-	0	4.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	4
CPC Fires-establishment of fire break rounds	0	-	0	36.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	36
Warehouse construction	0	-	0	-	0	9.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	9
Phytosanitary control - Chemical-Hypsipyla grandella	0	-	0	-	0	2.00	3.5	-	3.5	-	3.5	2.00	3.5	4.00	3.5	-	3.5	1.00	3.5	2.00	3.5	-	3.5	-	32	11
Transfer of personnel	0	-	0	-	0	-	0	-	0	10.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	10
High pruning	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	7.00	0	-	0	-	0	-	0	-	-	7
Weed control manual - Liana Cutting	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	4.00	0	-	0	-	0	-	-	4
Manual phytosanitary control-Hypsipyla grandella	0	-	0	-	0	-	3.13	-	3.13	-	3.13	-	3.13	-	3.13	-	3.13	-	3.13	1.00	3.13	-	3.13	-	28	1
Weed control-Chemical in Strips	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	2.00	0	-	-	2
Fence maintenance	0	-	0	3.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	3
Grand Total																										-
38.5	**147.00**	184.91	**71.00**	51.76	**85.00**	91.02	**19.00**	99.77	**36.00**	188.99	**166.00**	91.02	**128.00**	93.03	**33.00**	77.16	**142.00**	21.03	**81.00**	38.73	**2.00**	31.33	**-**	1,007	910

5.3.3. Farm No. 6159 Lastenia 2 (Gilberto Samaniego)

Reforestation summary

Table 74. Categorization of reforested areas.

Farm No. 6159 - Lastenia 2 (Gilberto Samaniego)						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Almendro	*Dipteryx panamensis*	3x4	833	2.70	1.93	4.56
Cedro Amargo	*Cedrela odorata*	3x4	833	3.50		3.50
Cocobolo	*Dalbergia retusa*	3x4	833		1.86	2.00
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	3.50		3.50
Laurel	*Cordia alliodora*	3x4	833		2.16	2.00
Roble	*Tabebuia rosea*	3x4	833	6.33	1.00	7.33
Teak	*Tectona grandis*	4x5	500	5.88		5.88
Total, reforested				**21.91**	**6.95**	**28.86**
Area to plant						7.00
Protection area						3.47
Stubble						3.78
Stream area						0.77
Lake						0.22
Fire break						1.04
Internal road						1.21
Total Surface Area						**46.35**

Map of the Farm

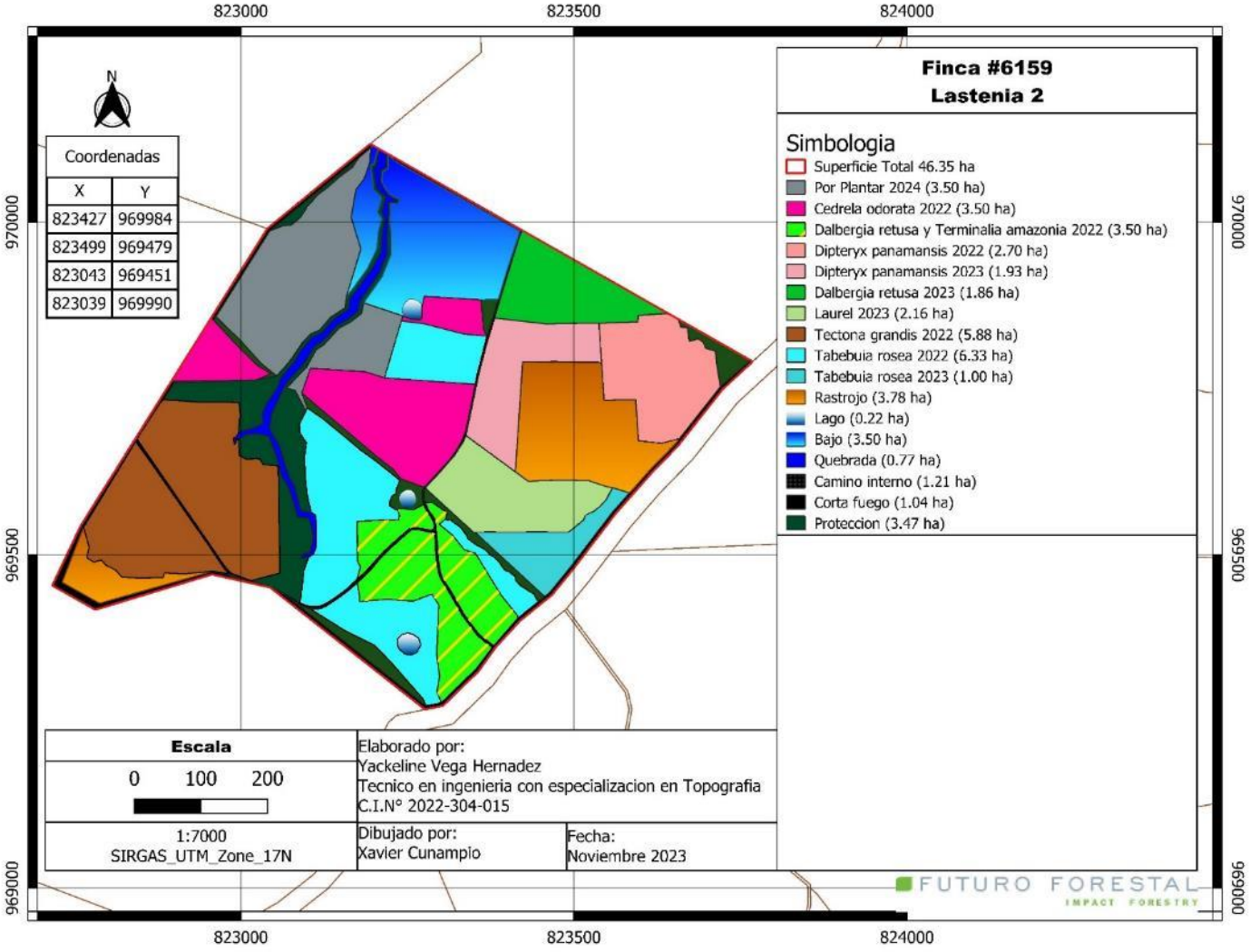


FIGURE 49. MAP OF THE FARM LASTENIA 2 (NO. 6169).

Planting Mortality 2022

Table 75. **PLANTING MORTALITY OF YEAR, FARM NO. 6159 LASTENIA 2.**

Farm	N° Farm	Species	Number of trees planted	Number of dead trees	% mortality
Lastenia # 2	6159	*Dalbergia retusa*	1666	117	7%
		Tabebuia rosea	833	100	12%
		Cordia alliodora	1666	50	3%
		Dipteryx panamensis	1549	15	1%
Total, average			**5714**	**282**	**5%**

Preliminary Planting Mortality 2023

Table 76. **PRELIMINARY SAMPLING OF PLANTING MORTALITY, FARM NO. 6159.**

Farm Name	Farm #	Species	Scientific Name	Number alive	Number dead	Total Quantity	% Mortality
Lastenia N°2	6159	Almendro	*Dipteryx panamensis*	166	2	168	1%
		Cocobolo	*Dalbergia retusa*	704	52	756	7%
		Laurel	*Cordia alliodora*	163	5	168	3%
		Roble	*Tabebuia rosea*	74	10	84	12%

After planting at Farm 6159, the team conducted a preliminary sampling to learn about pre-summer mortality by species as presented in the tables above.

Planting Mortality 2022

Table 77. THE MORTALITY REPORT OF FARM 6159 LASTENIA 2 IS PRESENTED.

Farm	N° Farm	Species	Mortality
Lastenia # 2 (Gilberto Samaniego)	6159	Teak- *Tectona grandis*	0
		Cocobolo - *Dalbergia retusa*	193
		Amarillo-*Terminalia amazonia*	196
		Almendro-*Dipteryx panamensis*	1512
		Cedro- *Cedrela odorata*	1260
Total, average			**3,161**

All dead trees of the different forest species were replaced. A total of 3,161 trees were replanted.

Table 78. Executed Annual Operation Plan 2023

Farm No. 2453 - Lastenia 1 (Gilberto Samaniego)																										
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Weed control - manual-cleaning	-	-	-	-	-	-	-	-	-	25	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	33
Weed control - chemical-Backpack Pump	-	-	-	-	18	-	-	-	-	-	18	-	-	-	-	-	18	24	-	35	-	-	-	-	53	59
Manual weed control - cleaning	-	-	18	24	-	-	-	-	-	-	-	50	-	-	-	-	-	53	-	15	-	-	-	-	18	142
Weed control-Strip Cleaning	-	-	-	87	16	12	-	-	3	101	21	15	-	-	110	25	-	22	-	1	-	-	2	-	152	263
Manual phytosanitary control -leaf-cutter ants	-	-	14	9	14	11	14	-	8	-	14	-	14	-	14	-	14	-	14	-	14	-	14	-	149	20
Replanted	-	-	-	-	-	-	-	-	-	-	1,628	-	-	-	-	7	-	12	-	-	-	-	-	-	1,628	19
Supervision	-	-	-	11	-	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	14
Weed control-mechanical-Güira	-	-	17	26	33	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	0	-	50	34
CPC Fires-establishment of fire break rounds	-	-	-	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
Contractor supervision	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Strip clearing - marking	-	-	-	-	-	29	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	34
Strip clearing-cutting of marks	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Fence maintenance	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Weed control manual-slice for maintenence	-	-	-	2	89	71	56	-	-	-	-	26	56	39	16	-	29	-	-	-	-	-	-	-	246	138
Processing of workers	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5

Strip clearing	-	-	-	-	-	-	-	116	-	-	-	-	-	41	-	-	-	-	-	-	-	-	-	-	157
Control fitosanitario-Chemical-Hypsipyla grandella	-	-	-	-	-	-	3	-	3	2	3	-	3	2	3	-	3	3	3	-	3	-	3	-	28	7
Contingencies	-	-	-	-	-	-	-	-	-	-	-	4	-	1	-	-	-	-	-	-	-	-	-	-	-	5
Granular fertilization	-	-	-	-	-	-	-	-	6	-	7	-	-	18	-	-	-	-	-	-	-	-	-	-	13	18
Weed control manual - Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	8
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	2
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	4	-	-	-	-	-	-	-	10
Manual planting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	7
Grand Total	**-**	**-**	**49**	**194**	**169**	**139**	**73**	**117**	**20**	**128**	**1,690**	**112**	**73**	**110**	**143**	**46**	**63**	**127**	**17**	**51**	**17**	**-**	**19**	**-**	**2,336**	**1,024.00**

5.3.4. Farm No. 342926 Lastenia 3 (Hermenegildo Espinosa)

Reforestation summary

Table 79. Categorization of reforested areas.

Farm No. 342926 - Lastenia 3 (Hermenegildo Espinosa)					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Cedro Amargo	*Tabebuia rosea*	3x4	833	1.99	1.99
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	14.45	14.45
Roble	*Cedrela odorata*	3x4	833	2.71	2.71
Total, reforested				**19.15**	**19.15**
Area to plant					16.49
Protection area					2.31
Stream area					0.50
Downslope areas					8.38
Fire break					1.98
Total Surface Area					**48.81**

Map of the Farm

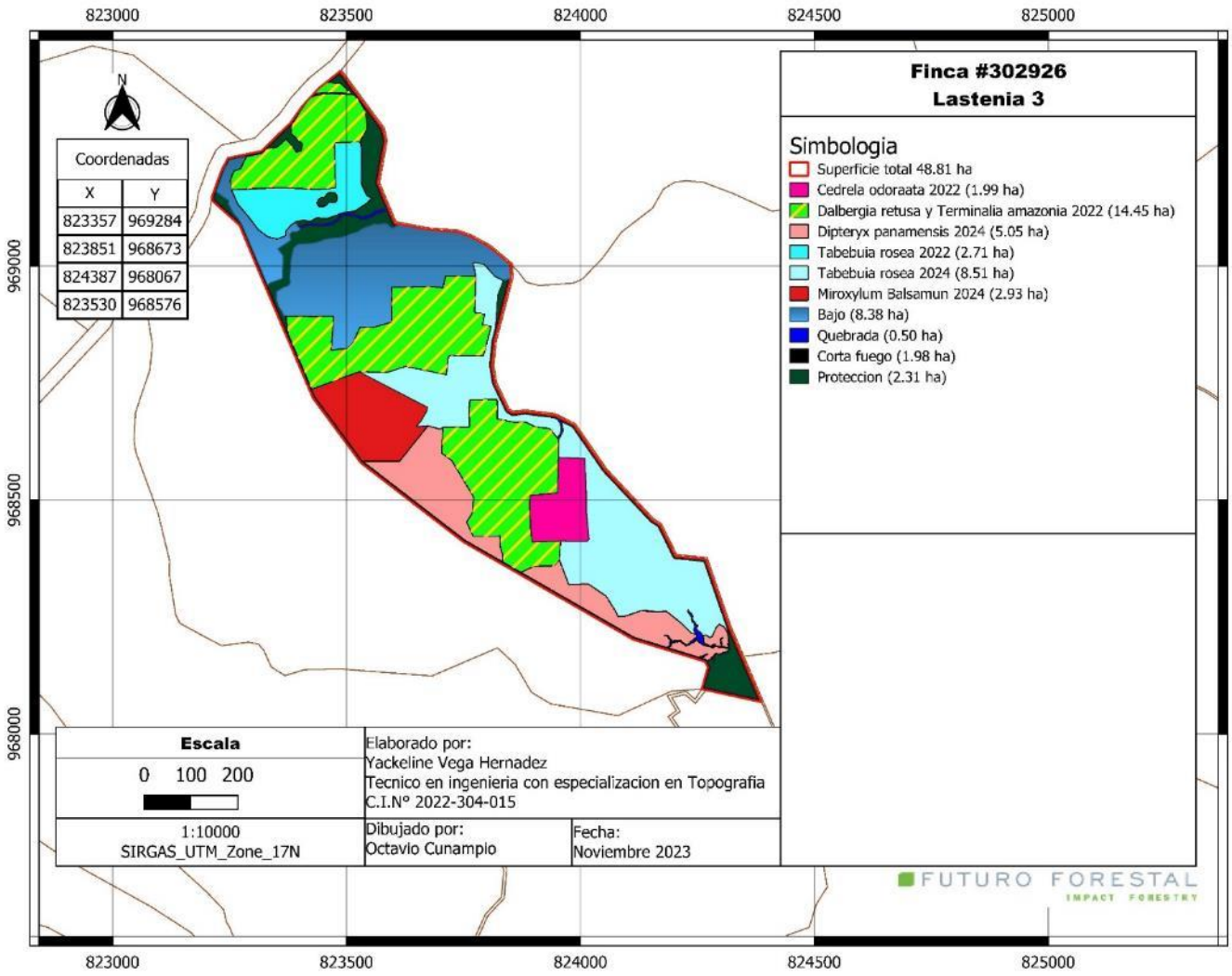


FIGURE 50. MAP OF THE FARM LASTENIA 3 (NO. 342926).

Mortalidad Plantado 2022

Table 80. **THE PLANTING MORTALITY REPORT OF FARM 2926 LASTENIA 3 IS PRESENTED.**

Farm	N° Farm	Species	Mortality
Lastenia # 3 (Hermenegildo Espinosa)	2926	Cocobolo - *Dalbergia retusa*	1505
		Amarillo-*Terminalia amazonia*	1435
		Roble-*Tabebuia rosea*	1284
		Cedro- *Cedrela odorata*	0
Total, average			**4,224**

All dead trees of the different forest species were replaced. A total of 4,224 trees were replanted.

Table 81. Executed Annual Operation Plan 2023

Farm No. 342926 - Lastenia 3 (Hermenegildo Espinosa)																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed control - manual-cleaning	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Weed control manual-cleaning	-	1	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	64	-	-	-	77
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	111	-	6	-	-	-	-	-	-	-	144
Manual phytosanitary control -leaf-cutter ants	-	-	2	2	2	4	2	-	1	-	3	-	2	-	2	-	2	-	2	-	3	-	2	-	22	6
Replanted	-	-	-	-	-	-	-	-	1	-	41	-	-	-	-	12	-	-	-	-	-	-	-	-	42	12
Supervision	-	5	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Weed control-mechanical-Güira	-	17	17	26	28	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	45	47
CPC Fires-establishment of fire break rounds	-	-	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48
Strip clearing -marking	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Strip clearing-cutting of marks	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Fence maintenance	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Weed control manual-slice of maintenance	-	-	-	52	74	40	71	-	-	-	-	52	71	-	-	6	9	-	-	-	-	1	-	-	225	151
Processing of workers	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2

Strip clearing	-	-	-	-	-	-	-	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	86
Granular fertilization	-	-	-	-	-	-	-	-	14	-	8	-	-	55	-	-	-	-	-	-	-	-	-	-	23	55
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	6
Contingency	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	4
Chainsaw Operator	-	-	-	-	-	-	-	5	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Weed control - mechanical-Tractor	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Tree clearing	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Assistant Chainsaw Operator	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Worker processing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	9
Grand Total	**-**	**23**	**19**	**143**	**103**	**44**	**73**	**93**	**17**	**104**	**52**	**60**	**73**	**55**	**2**	**135**	**10**	**11**	**2**	**-**	**3**	**74**	**2**	**-**	**357**	**742**

5.3.5. Farm No. 30163457 Lastenia 4 (Alfonso Valdés)

Reforestation summary

Table 82. Categorization of reforested areas.

Farm No. 30163457 - Lastenia 4 (Alfonso Valdés)					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Caoba	*Swietenia macrophylla*	3x4	833	1.03	1.03
Cedro Amargo	*Cedrela odorata*	3x4	833	1.53	1.53
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	3.95	3.95
Espavé	*Anacardium excelsum*	3x4	833	1.45	1.45
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	0.52	0.52
Roble	*Tabebuia rosea*	3x4	833	0.76	0.76
Teak	*Tectona grandis*	4x5	500	4.89	4.89
Total, reforested				**14.14**	**14.14**
Area to plant					6.78
Protection area					2.92
Artificial lake					0.20
Stream area					2.00
Infrastructure					1.24
Total Surface Area					**27.28**

Map of the Farm

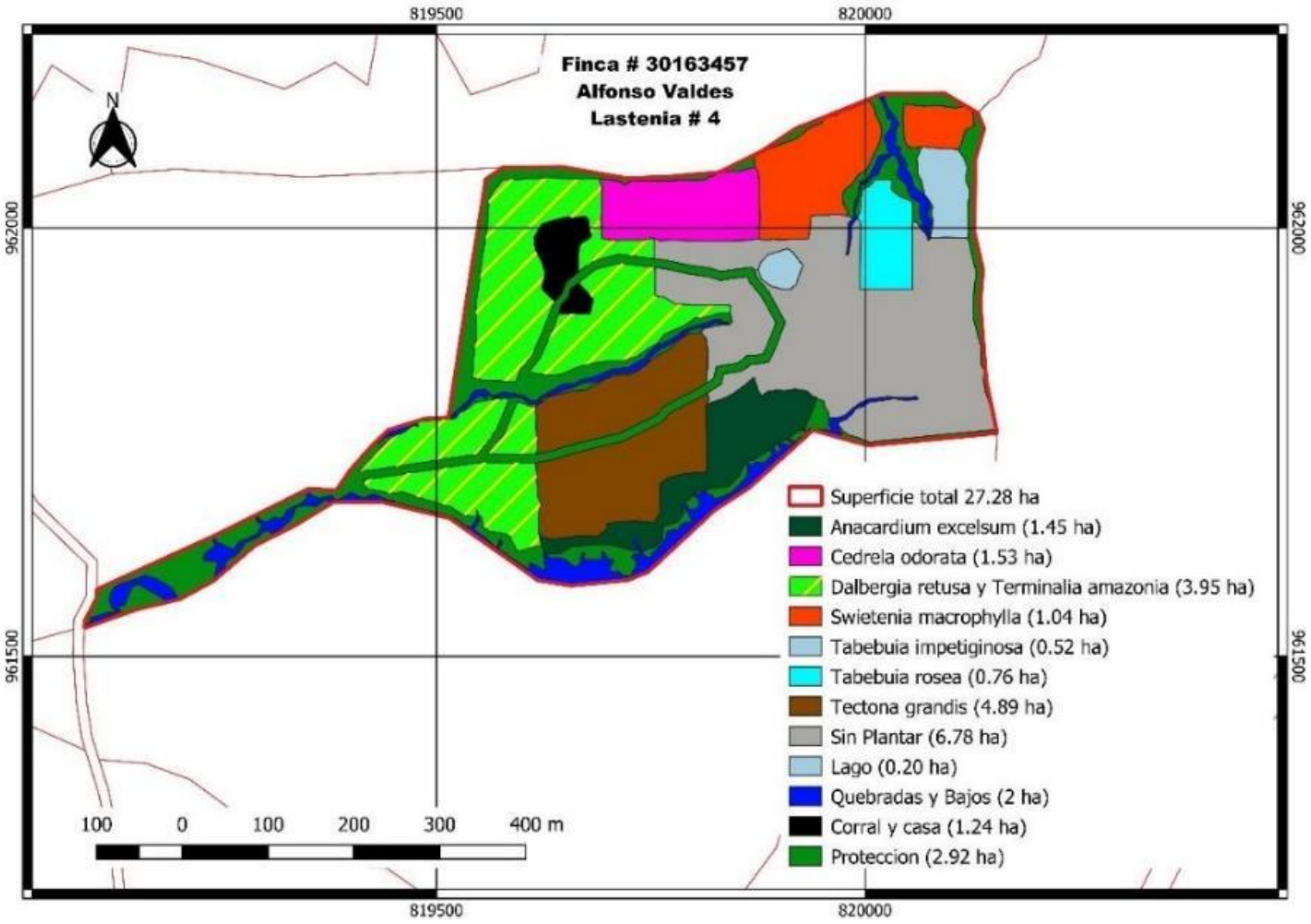


FIGURE 51. MAP OF THE FARM LASTENIA 4 (NO. 30163457).

Planting Mortality 2022

Table 83. THE MORTALITY REPORT OF FARM 3457 LASTENIA 4 IS PRESENTED.

Farm	N° Farm	Species	Mortality
Lastenia # 4 (Alfonzo Valdés)	3457	Cocobolo - *Dalbergia retusa*	875
		Amarillo-*Terminalia amazonia*	665
		Roble-*Tabebuia rosea*	290
		Cedro- *Cedrela odorata*	507
		Guayacán morado- *Tabebuia impetiginosa*	120
		Caoba - *Swietenia macrophylla*	910
		Espavé - *Anacardium excelsum*	0
Total, average			**3,367**

All dead trees of the different forest species were replaced. A total of 3,367 trees were replanted.

In this Farm, the Espavé species planted bare root in 2022, the mortality was highly significant, i.e., it did not respond as expected, therefore, it is intended to change it with another species next year 2024.

Table 84. Executed Annual Operation Plan 2023

Farm No. 30163457 - Lastenia 4 (Alfonso Valdés)																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed control manual - slices of maintenence	57	52	-	-	-	-	39	-	-	-	13	21	39	35	-	17	5	53	-	27	-	11	-	-	153	216
Weed control manual-cleaning	-	2	-	-	-	-	-	24	-	18	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	64
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	27	1	42	-	26	53	10	3	12	9	4	-	-	0	-	66	121
Manual phytosanitary control -leaf-cutter ants	3	5	7	4	7	10	7	-	7	-	7	-	7	-	7	-	7	-	7	-	7	-	7	-	76	19
Replanted	-	-	-	-	-	-	-	-	0	-	321	-	-	12	-	5	-	-	-	-	-	-	-	-	321	17
Supervision	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Processing of workers	-	-	-	-	-	-	-	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Contingency	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Tree clearing	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Establishment of fire break rounds	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Weed control - manual-slice of maintenance	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
CPC-Fire Surveilance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weed control-manual cleaning	-	-	-	56	-	-	-	9	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71
Maintenance of internal roads	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Formation pruning	-	-	3	4	-	3	-	-	3	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	9	7
Tree Unsucker	-	-	7	8	-	-	-	-	7	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	21	8

Weed control-mecánico- tractor	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Coontractor Supervision	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Fence maintenance	-	-	-	4	-	3	-	-	-	21	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	34
Limpieza y mantenimiento de infraestructura	-	-	-	-	-	3	-	-	-	3	-	6	-	6	-	-	-	3	-	3	-	1	-	-	-	25
House Construction	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Removal of sprouts	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	7
Weed control manual - Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	9
Phytosanitary-chemical control - Hypsipyla grandella	-	-	-	-	-	-	2	-	-	-	2	-	2	4	2	2	2	1	2	2	2	-	2	-	19	9
Foliar fertilization	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	3	-	-	-	-	-	-	-	-	-	5
Weed control - slices of establishment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	1	-	-	-	-	-	5
Manual phytosanitary control- Hypsipyla grandella	-	-	-	-	-	-	3	-	-	-	3	-	3	-	3	4	3	-	3	-	3	-	3	-	22	4
Organic Mulch	-	-	-	8	23	19	2	-	-	-	-	-	2	-	7	-	10	36	28	-	-	-	-	-	73	63
Transfer of supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	8	-	-	-	13
Weed control – chemical -Backpack Pump	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	16	-	-	-	37
Processing of workers	-	-	-	-	-	-	-	-	-	-	-	3	-	6	-	9	-	6	-	9	-	3	-	-	-	36
Supervision	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Grand Total	**59**	**97.00**	**17**	**92.00**	**30**	**54.00**	**53**	**42.00**	**17**	**81.00**	**347**	**72.00**	**53**	**113.00**	**72**	**74.00**	**33**	**114.00**	**56**	**72.00**	**12**	**39.00**	**12**	**-**	**760**	**850.00**

5.3.6. Farm No. 2719 Lastenia 5

Reforestation summary

Table 85. Categorization of reforestd areas.

Farm 2719 - Lastenia 5						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Almendro de montaña	*Dipteryx panamensis*	3x4	833	13.16	0.50	13.66
Amarillo	*Terminalia amazonia*	3x4	833	1.23		1.23
Bálsamo	*Myroxylon balsamum*	3x4	833	0.84		0.84
Caoba	*Swietenia macrophylla*	3x4	833	3.34		3.34
Cedro Amargo	*Cedrela odorata*	3x4	833	2.93		2.93
Cocobolo	*Dalbergia retusa*	3x4	833	22.74		22.74
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	4.47		4.47
Roble	*Tabebuia rosea*	3x4	833	5.47		5.47
Teak	*Tectona grandis*	4x5	500	0.24		0.24
Total, reforested				**54.42**	**0.50**	**54.92**
Area to plant						14.18
Protection area						22.63
Stream area						1.00
Lago artificial						1.00
Infrastructure						0.72
Total Surface Area						**94.45**

Map of the Farm

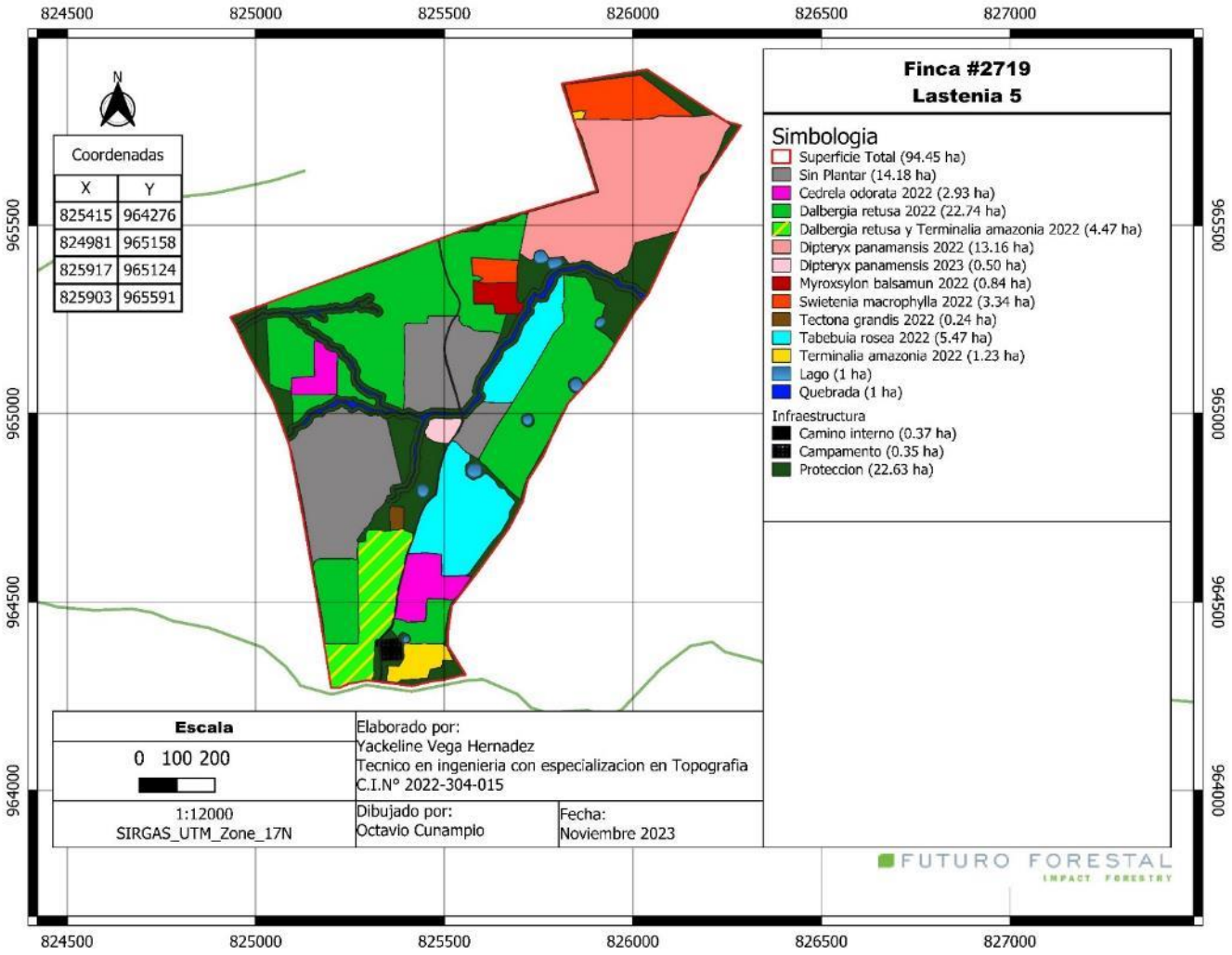


FIGURE 52. MAP OF THE FARM LASTENIA 5 (NO. 2719).

Planting Mortality 2022

Table 86. THE MORTALITY REPORT OF THE FARM 2719 LASTENIA 5 IS PRESENTED.

Farm	N° Farm	Species	Number of trees Replanted
Lastenia # 5 (Rosa Amelia)	2719	Cocobolo - *Dalbergia retusa*	92
		Amarillo-*Terminalia amazonia*	172
		Laurel-*Cordia alliodora*	168
		Cedro- *Cedrela odorata*	143
Total, average			**575**

Replanting consisted of replacing all the dead trees of the different forest species. A total of 575 trees were replanted.

Table 87. Executed Annual Operation Plan 2023

Farm No. 2719 - Lastenia 5																										
DESCRIPTION	January		February		March		April		May		June		July			August	September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Weed control - manual-cleaning	-	-	-	-	-	6	-	70	-	33	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	110
Weed control manual-cleaning	-	12	-	-	17	6	-	-	-	-	-	22	-	66	-	45	-	-	-	13	-	29	-	-	17	193
Weed control-Strip Cleaning	87	-	123	82	2	47	60	-	2	-	7	79	60	46	2	49	41	-	2	-	7	-	2	-	393	303
Manual phytosanitary control -leaf-cutter ants	-	-	25	4	26	17	26	-	26	-	26	-	26	-	27	-	26	-	26	-	26	-	26	-	285	21
Replanted	-	-	-	-	-	-	-	-	15	-	126	-	-	-	-	-	-	3	-	-	-	-	-	-	141	3
Supervision	-	39	-	13	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58
Weed control manual-slice for maintenence	-	16	136	1	85	14	9	-	-	-	14	-	9	-	27	-	172	-	-	9	-	3	-	-	452	43
Processing of workers	-	-	-	-	-	7	-	-	-	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
Contingency	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Establishment of fire break rounds	-	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46
Weed control manual-slice for maintenence	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
CPC-Fir Surveillance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organic Mulch	6	-	-	116	26	-	-	-	-	-	-	-	-	-	14	-	9	-	62	-	105	-	-	-	221	116
Formation pruning	-	-	31	-	13	-	13	-	-	-	31	38	13	-	-	7	-	-	-	-	44	-	4	-	149	45
Contractor supervision	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Fence maintenance	-	-	-	-	-	-	-	-	-	18	-	6	-	-	-	-	-	1	-	-	-	-	-	-	-	25
Cleaning and maintenance of infrastructure	-	-	-	-	-	-	-	-	-	24	-	8	-	-	-	3	-	13	-	-	-	1	-	-	-	49
Phytosanitary control - Chemical-Hypsipyla grandella	-	-	-	-	-	-	1	-	1	5	1	5	1	2	1	4	1	4	1	4	1	-	1	-	9	24
Weed control - Chemical-Backpack Pump	-	27	-	-	-	65	-	91	-	-	-	-	-	-	-	18	-	52	-	55	-	28	-	-	-	336
Clearance	-	117	-	-	-	-	-	-	-	-	-	-	-	62	-	-	-	-	-	28	-	19	-	-	-	226
Weed control mechanical	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40

Weed control- chemical in strips	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
CPC Fires-establishment of fire break rounds	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Strip clearing	-	-	-	-	-	-	-	14	-	163	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	177
Strip clearing -marking	-	-	-	-	-	-	-	-	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70
Granular fertilization	-	-	-	-	-	-	-	-	24	-	25	120	-	-	-	-	-	-	-	-	-	-	-	48	120
Trail	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	13
Contingency	-	-	-	4	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	7
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	-	-	-	-	-	-	4
Manual planting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	4
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Processing of workers	-	-	-	-	-	-	-	8	-	-	-	23	-	24	-	24	-	24	-	26	-	6	-	-	135
Maintenance of Vado	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	5
Grand Total	**93**	**320**	**315**	**231**	**168**	**168**	**108**	**190**	**68**	**349**	**230**	**301**	**108**	**214**	**70**	**155**	**249**	**109**	**91**	**135**	**183**	**86**	**33**	**-**	**1,715**	**2,258**

5.3.7. Farm No. 444101 José García

Reforestation summary

Table 88. Categorization of reforested areas.

Farm No. 444101 - José García					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2023	
Almendro de montaña	*Dipteryx panamensis*	3x4	833	1.05	1.05
Caoba	*Swietenia macrophylla*	3x4	833	1.01	1.01
Cocobolo	*Dalbergia retusa*	3x4	833	20.57	20.57
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	0.93	0.93
Total, reforested				**23.56**	**23.56**
Area to plant					13.00
Protection area					7.43
Artificial lake					0.39
Stream area					0.69
Infrastructure					0.77
Fire break					0.66
Total Surface Area					**46.50**

Map of the Farm

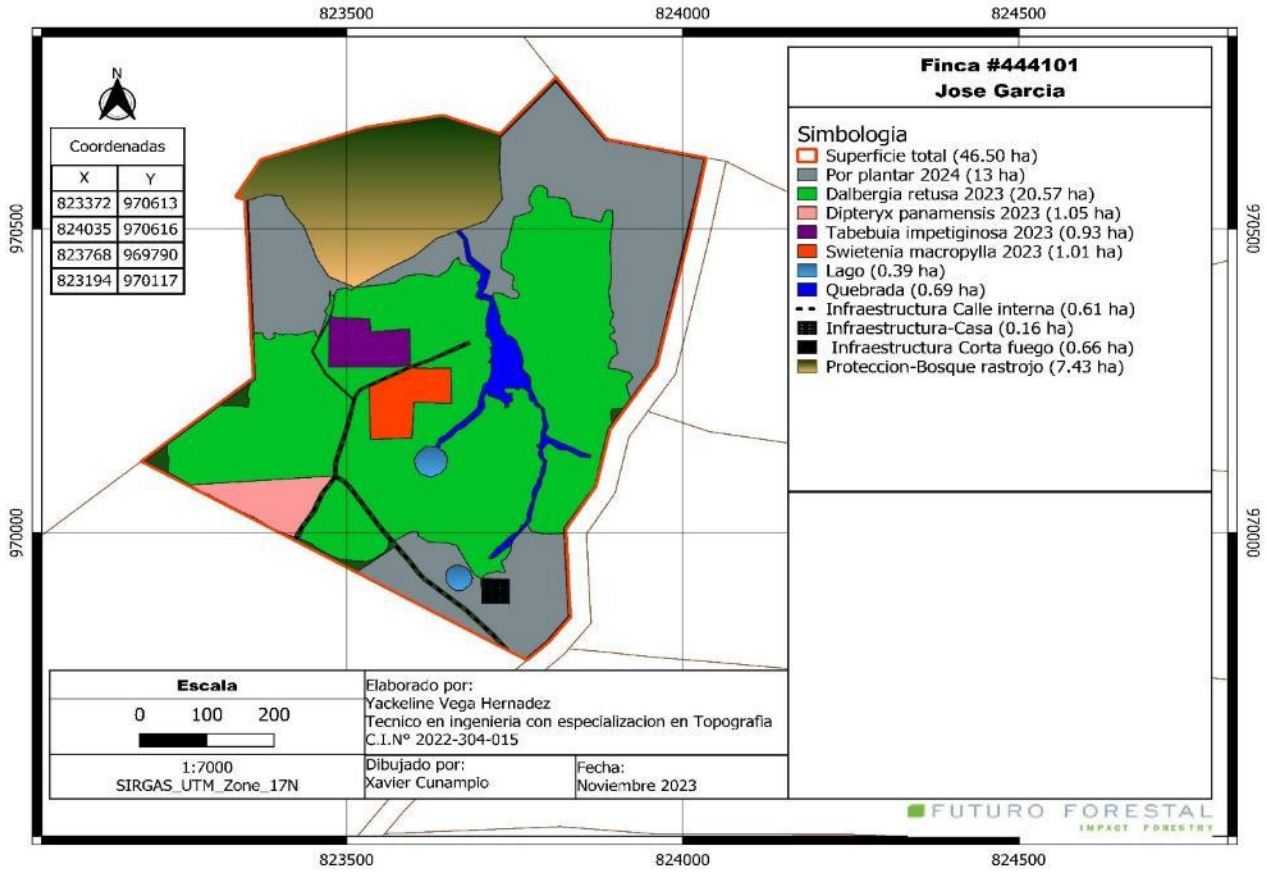


FIGURE 53. MAP OF THE FARM JOSÉ GARCÍA (NO. 444101).

Planting Mortality 2022

Table 89. **PLANTING MORTALITY OF THE YEAR 2023, FARM NO. 4101 JOSÉ GARCÍA.**

Farm	N° Farm	Species	Number of trees planted	Number of dead trees	% mortality
José García Lastenia	4101	Cocobolo-*Dalbergia retusa*	17,201	344	2%
		Caoba-*Swietenia macrophylla*	833	58	7%
		Guayacán Morado-*Tabebuia impetiginosa*	773	0	0%
		Almendro de montaña-*Dipteryx panamensis*	833	17	2%
Total, average			**19,640**	**419**	2%

Preliminary planting mortality 2023

Table 90. **PRELIMINARY SAMPLING OF THE PLANTING MORTALITY FARM NO. 4101.**

Name of the Farm	Farm #	Species	Scientific Name	Quantity Alive	Quantity Dead	Total quantity	% Mortality
José García Lastenia	4101	Almendro	*Dipteryx panamensis*	55	1	56	2%
		Caoba	*Swietenia macrophylla*	52	4	56	7%
		Cocobolo	*Dalbergia retusa*	713	15	728	2%
		Guayacán morado	*Tabebuia impetiginosa*	28	0	28	0%

After planting at Farm 4101, a preliminary sampling was carried out to determine pre-summer mortality by species, as shown in the tables above.

Table 91. Executed Annual Operation Plan 2023

FARM JOSE GARCIA																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	-	103	-	112	-	103	-	92	19	-	22	-	-	410	41
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	-	88	-	-	-	-	-	-	-	127
Strip clearing- cortar markings	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Plantado Manual	-	-	-	-	-	-	-	-	40	-	255	-	-	-	-	29	-	52	-	-	-	-	-	-	295	81
Weed control - manual-cleaning	-	-	-	-	-	-	-	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	29	-	-	-	-	-	-	-	51
Weed control - slices of establishment	-	-	-	-	-	-	-	-	145	-	-	-	-	28	-	84	-	54	-	-	-	-	-	-	145	166
Contractor supervision	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Strip clearing -marking	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Organic Mulch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	69	-	65	-	-	-	134	31
Weed control manual - slices of maintenence	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	114	-	20	-	-	-	134	26
Grand Total	**-**	**-**	**-**	**-**	**-**	**10.00**	**-**	**63.00**	**185**	**-**	**255**	**30.00**	**103**	**28.00**	**112**	**174.00**	**103**	**280.00**	**275**	**19.00**	**85**	**22.00**	**-**	**-**	**1,118**	**626.00**

5.3.8. Farm No. 30336549 Marcelino Guerra

Reforestation summary

Table 92. Categorization of reforested areas.

Farm No. 30336549 Marcelino Guerra					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Cocobolo	*Dalbergia retusa*	3x4	833	2.64	2.64
Laurel	*Cordia alliodora*	3x4	833	0.87	0.87
Almendro de montaña	*Dipteryx panamensis*	3x4	833	1.16	1.16
Total, reforested				**4.67**	**4.67**
Protection area-Buffer zone					1.33
Infrastructure					0.50
Lago artificial					0.10
Stream area					0.10
Fire breaks					0.45
Total Surface Area					**7.18**

Map of the Farm

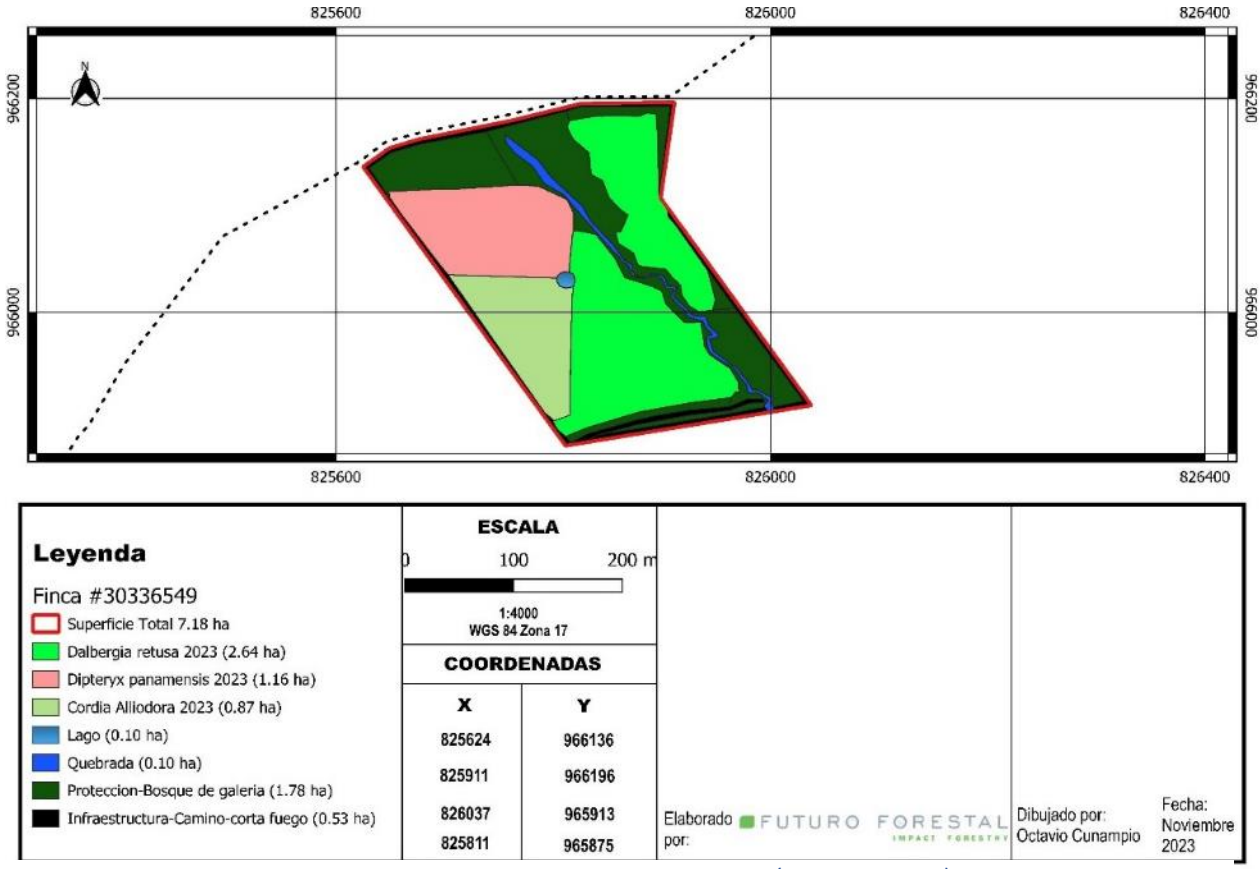


FIGURE 54. MAP OF THE FARM MARCELINO GUERRA (NO. 30336549).

5.3.9. Farm No. 920 Marcelino Guerra

Reforestation summary

Table 93. Categorization of reforested areas

Farm No. 920 Marcelino Guerra					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	
Cocobolo	*Dalbergia retusa*	3x4	833	2.76	2.76
Total, reforested				**2.76**	**2.76**
Fire breaks					0.54
Lago artificial					0.05
Total Surface Area					**3.35**

Map of the Farm

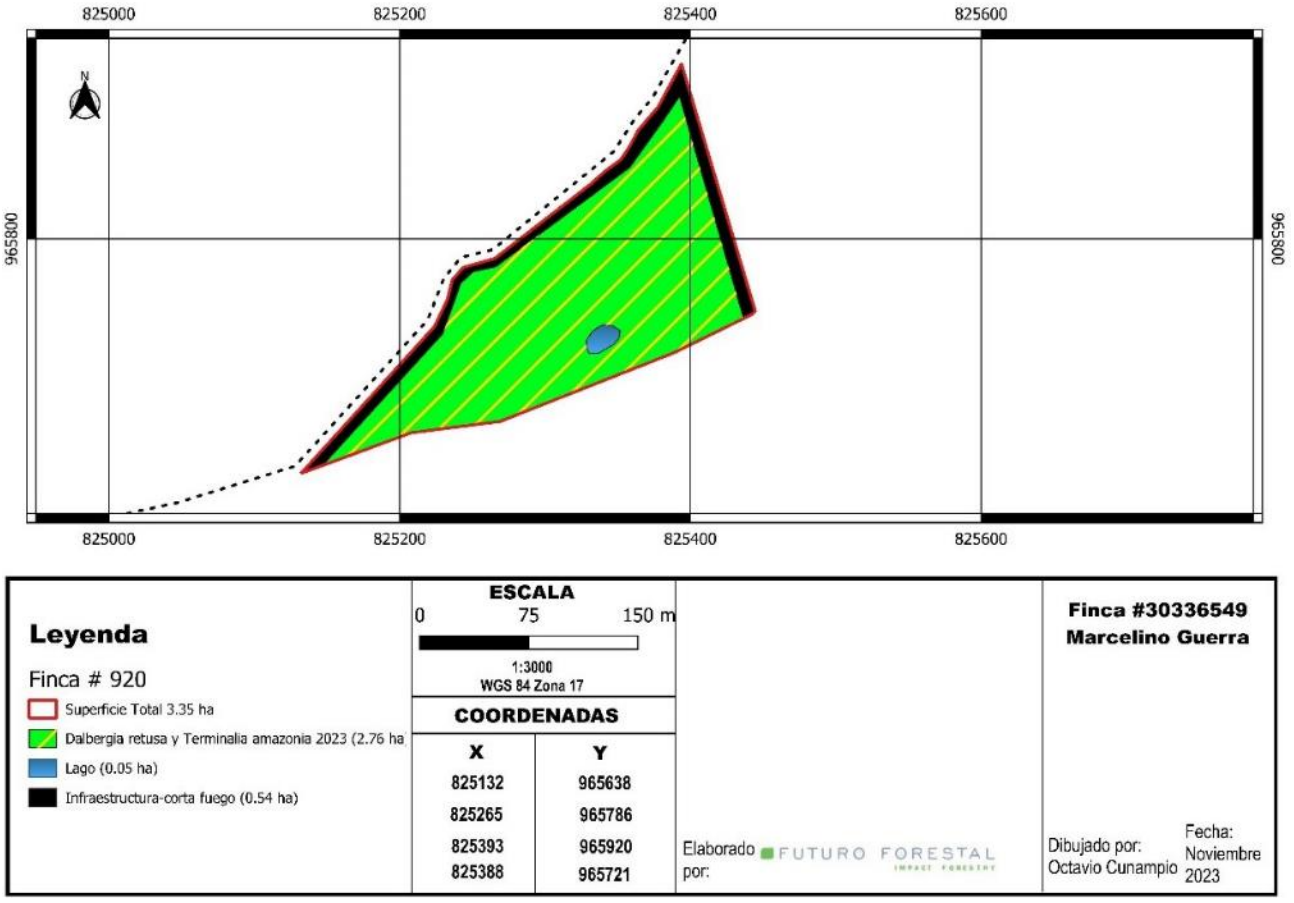


FIGURE 55. MAP OF THE FARM MARCELINO GUERRA (NO. 920).

Preliminary Planting Mortality 2023

Table 94. **PRELIMINARY SAMPLING OF PLANTING MORTALITY, FARM NO. 920**

Nombre de la Farm	Farm #	Location	Operational Unit	Species	Scientific Name	Quantity Alive	Quantity Dead	Total Quantity	% Mortality
Marcelino Guerra N°1	920	Lastenia	Lastenia	Cocobolo y Amarillo	*Dalbergia retusa - Terminalia amazonia*	53	3	56	5%

After planting at Farm 920, a preliminary sampling was carried out to determine pre-summer mortality by species, as shown in the tables above.

Table 95. Executed Annual Operation Plan 2023

FARM MARCELINO GUERRA																										
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Weed control manual - slices de mantenimiento	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	16	32	22	9	-	-	38	55
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	-	10	-	30	-	33	44	30	3	17	-	-	-	-	-	120	47
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	5	-	22	-	-	-	-	-	-	-	-	-	-	-	27
Chainsaw Operator	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Fence construction	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Strip clearing-cutting markings	-	-	-	-	-	5	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	7
Strip clearing - marking	-	-	-	-	-	21	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	25
Manual planting	-	-	-	-	-	-	-	-	10	-	26	4	33	28	-	-	-	-	-	-	-	-	-	-	69	32
Fence maintenance	-	-	-	-	-	19	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35
Strip clearing	-	-	-	-	-	67	-	16	-	-	-	-	-	36	-	-	-	-	-	-	-	-	-	-	-	119
Weed control - manual-cleaning	-	-	72	-	45	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	5
Supervision	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Processing of workers	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	6	-	6	-	-	-	-	-	-	-	-	-	-	-	12
Initial Fertilization	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4
Foliar fertilization	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	6

Cleaning and maintenance of infrastructure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4
Weed control - chemical- Backpack Pump	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	18
Transfer of supplies	-	-	-	-	-	-	-	-	-	-	2	-	2	-	2	-	2	-	1	-	0	2	-	-	8	2
Organic Mulch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	11	-	-	3	-	-	38	3
Weed control- Chemical in strips	-	-	-	-	-	-	-	-	-	-	-	-	9	-	15	-	14	-	14	-	9	10	-	-	61	10
Processing of workers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Grand Total	**-**	**-**	**72**	**-**	**45**	**119.00**	**-**	**38.00**	**10**	**-**	**37**	**15.00**	**74**	**109.00**	**50**	**48.00**	**72**	**35.00**	**59**	**33.00**	**31**	**24.00**	**-**	**-**	**451**	**421.00**

5.3.10. Farm No. 1289 Avendaño (Altos del Cristo)

Reforestation summary

Table 96. Categorization of reforested areas.

Farm No. 1289 - Avendaño						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Almendro de montaña	*Dipteryx panamensis*	3x4	833		2.26	2.26
Amarillo	*Terminalia amazonia*	3x4	833		1.07	1.07
Caoba	*Swietenia macrophylla*	3x4	833		2.06	2.06
Cocobolo	*Dalbergia retusa*	3x4	833		3.24	3.24
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	8.03	2.61	10.64
Guayacán morado	*Tabebuia impetiginosa*	3x4	833		3.30	3.30
Roble	*Tabebuia rosea*	3x4	833	0.76	3.40	4.16
Parcelas Zurich Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	0.25		0.25
Total, reforested				**9.04**	**17.94**	**26.98**
monitoring Zurich control – unplanted.						0.25
Protection area						6.59
Stream area						2.23
Infrastructure						1.47
Total Surface Area						**37.52**

Map of the Farm

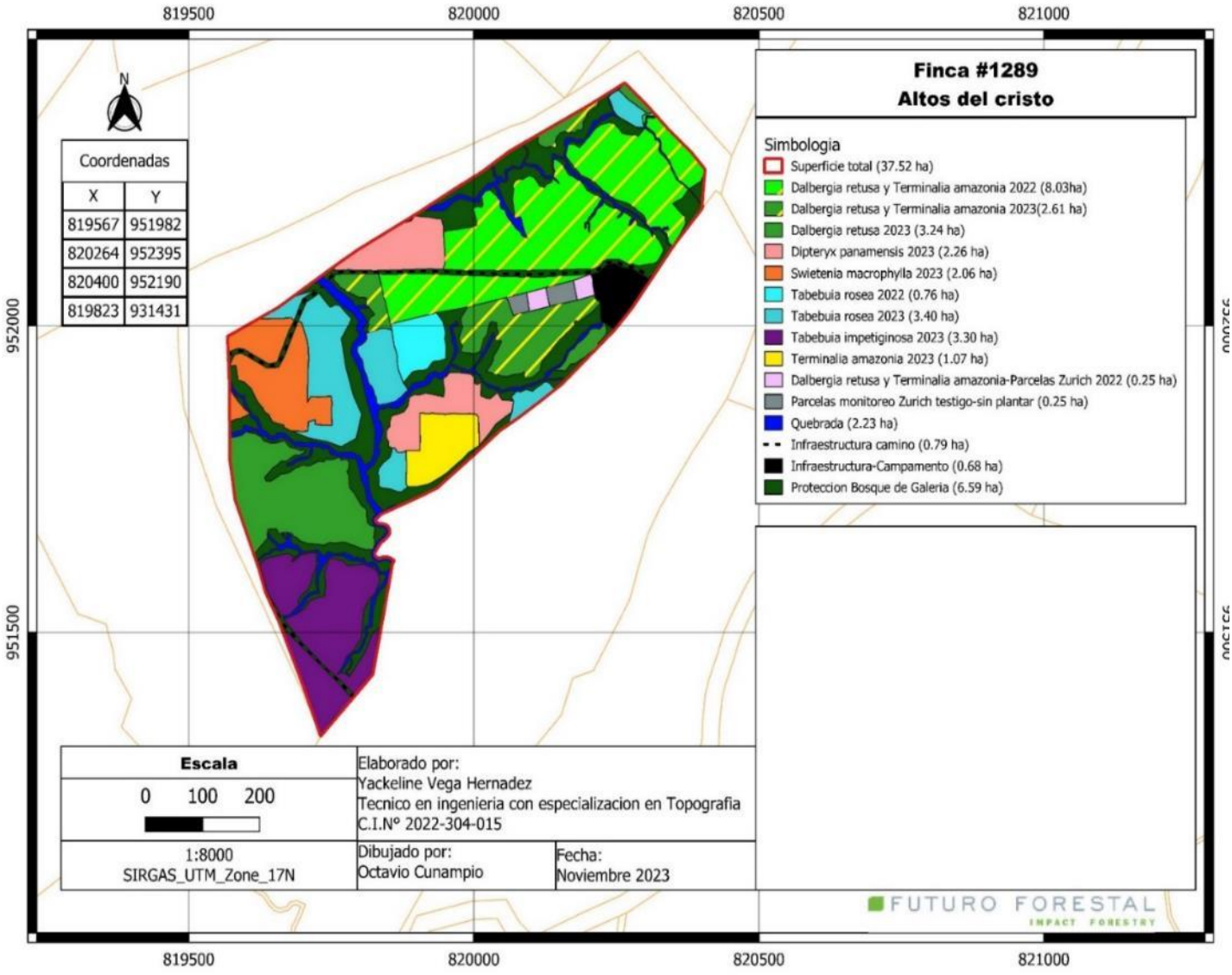


FIGURE 56. MAP OF THE FARM ALTOS DEL CRISTO (NO. 1289).

Planting Mortality 2022

Table 97. **FARM AVENDAÑO 1289 PLANTED IN THE YEAR 2022.**

Farm	Farm N°	Coommon name	Scientific name	Number of trees planted 2022	Number of dead trees 2022	% mortality
Avendaño	1289	Cocobolo	Dalbergia retusa	3441	267	8%
		Amarillo	Terminalia amazonia	3212	173	6%
		Roble	Tabebuia rosea	633	243	38%
Total, average				7286	683	17%

Based on the results of the following table, the species *Tabebuia rosea* has the highest percentage of mortality in relation to the number of trees planted per species. The Roble was planted bare root, which explains its high percentage of mortality.

Planting Mortality 2022 y 2023

Table 98. **FARM AVENDAÑO 1289 PLANTED IN YEAR 2023.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2023	% mortality
Avendaño	1289	Cocobolo	Dalbergia retusa	1131	4%
		Amarillo	Terminalia amazonia	1129	0%
		Roble	Tabebuia rosea	2236	5%
		Almendro de montaña	*Dipteryx panamensis*	1882	2%
		Caoba	*Swietenia macrophylla*	1575	5%
		Amarillo	*Terminalia amazonia*	910	1%
		Guayacán morado	*Tabebuia Impetiginosa*	2835	4%
		Cocobolo	*Dalbergia retusa*	2975	4%
Total, average				14673	3%

In general, the plantation showed a good adaptation after planting, as confirmed by the low mortality rate.

5.3.11. Farm No. 2162 Avendaño (Altos del Cristo)

Reforestation summary

Table 99. Categorization of reforested areas.

Farm No. 2162 - Avendaño						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Almendro de montaña	*Dipteryx panamensis*	3x4	833		1.02	1.02
Cocobolo	*Dalbergia retusa*	3x4	833		4.17	4.17
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	0.47	1.26	1.73
Total, reforested				**0.47**	**6.45**	**6.92**
Protection area						2.79
Stream area						0.67
Infrastructure						0.42
Total Surface Area						**10.80**

Map of the Farm

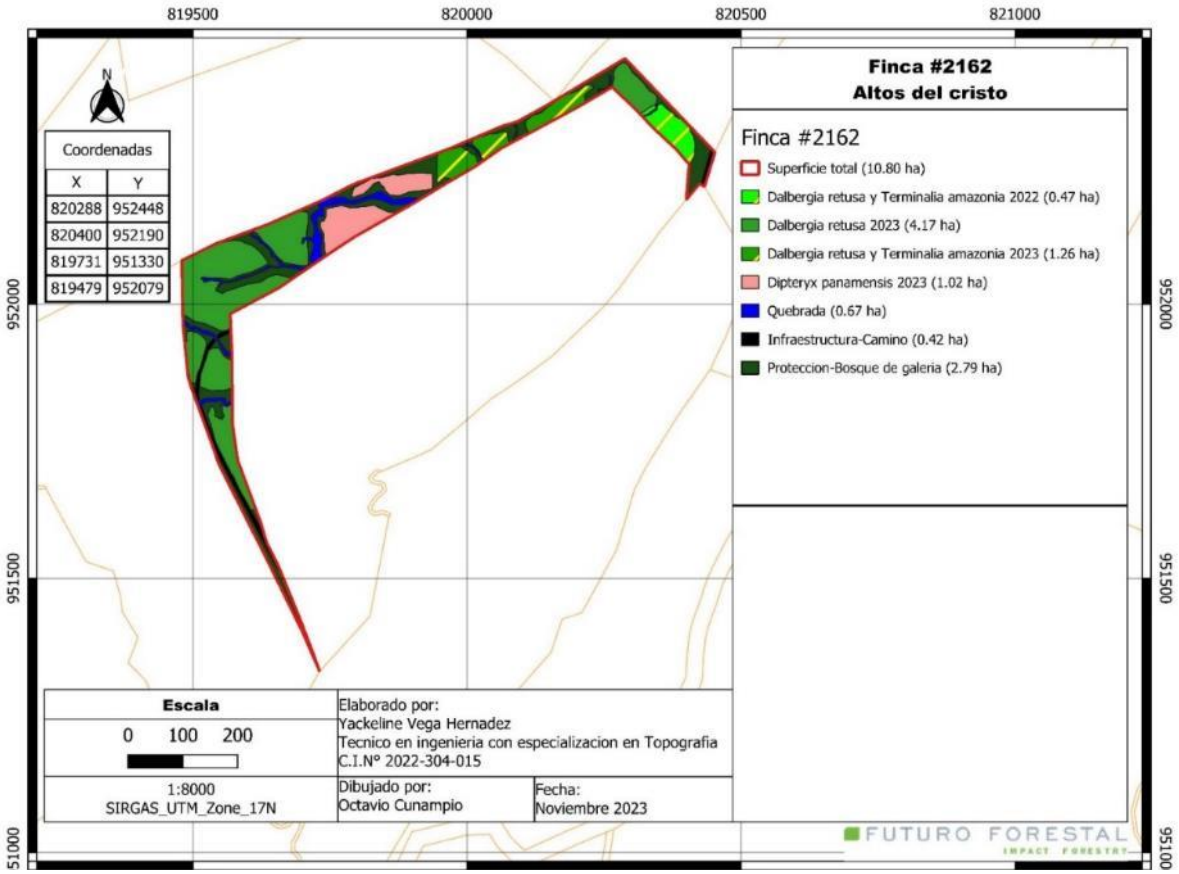


FIGURE 57. MAP OF THE FINCA ALTOS DEL CRISTO (NO. 2162).

Planting Mortality 2022

Table 100. **PLANTING MORTALITY OF 2022.**

Farm	Farm N°	Common name	Scientific name	Number of trees planted 2022	Number of dead trees 2022	% mortality
Avendaño	2162	Cocobolo	Dalbergia retusa	150	3	2%
		Amarillo	Terminalia amazonia	141	5	3%
Total, average				**291**	**8**	**3%**

Based on the results presented in the table above, the average mortality of these two species was low in 2022.

Preliminary Planting Mortality 2023

Table 101. **PERCNTAGE OF PLANTING MORTALITY PORCENTAJE OF YEAR 2023.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2023	% mortality
Avendaño	2162	Cocobolo	Dalbergia retusa	525	1%
		Amarillo	Terminalia amazonia	525	0%
		Roble	Tabebuia rosea	135	3%
		Almendro de montaña	*Dipteryx panamensis*	966	1%
		Cocobolo	*Dalbergia retusa*	3115	1%
Total, average				5266	1%

For the species reforested in 2023 on this farm, the percentage of mortality was significantly low in relation to the number of trees planted.

5.3.12. Farm No. 1663 Avendaño (Altos del Cristo)

Reforestation summary

Table 102. Categorization of reforested areas.

Farm No. 1663 - Avendaño						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Amarillo	*Terminalia amazonia*	3x4	833		1.20	1.20
Cocobolo	*Dalbergia retusa*	3x4	833		7.82	7.82
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	2.31	12.01	14.32
Parcelas Zúrich Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833			0.50
Roble	*Tabebuia rosea*	3x4	833		5.99	5.99
Total, reforested				**2.31**	**27.02**	**29.83**
Protection area						3.86
Stream area						1.27
Infrastructure						0.71
Fire Break						1.58
Zurich monitoring plots control-no planting						0.50
Total Surface Area						**37.75**

Map of the Farm

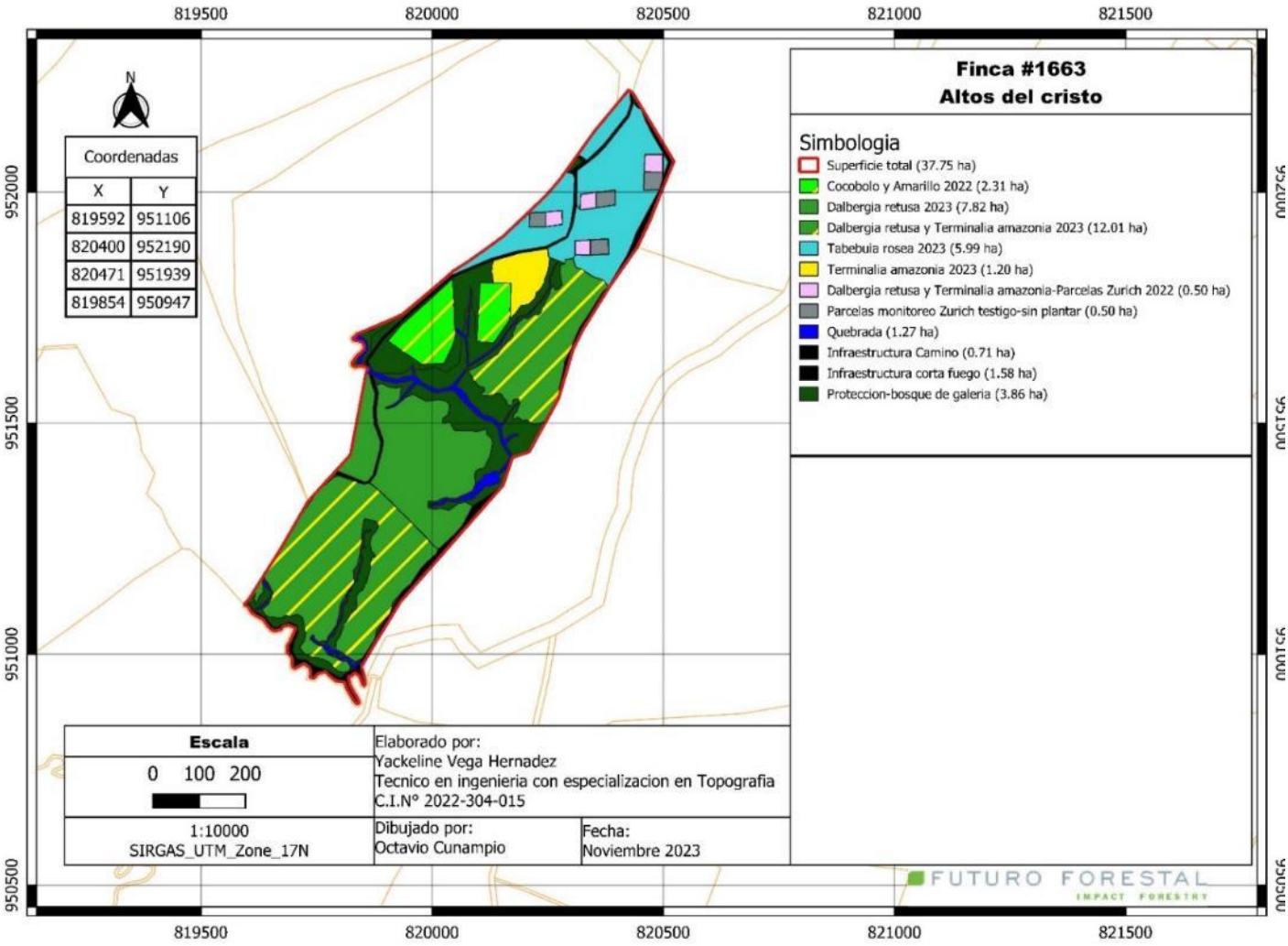


FIGURE 58. MAP OF THE FARM ALTO DEL CRISTO (NO. 1663).

Preliminary Planting Mortality 2023

Table 103. **PLANTING MORTALITY 2023.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2023	% mortality
Avendaño	1663	Cocobolo	*Dalbergia retusa*	4900	2%
		Amarillo	*Terminalia amazonia*	4830	1%
		Roble	*Tabebuia rosea*	4687	5%
		Cocobolo	*Dalbergia retusa*	6475	3%
		Amarillo	*Terminalia amazonia*	910	2%
Total, average				**21802**	**3%**

Los resultados indican que en esta Farm la mortalidad fue baja para todas las especies reforestadas, siendo de 3% en general.

Planting Mortality 2022

Table 104. **PLANTING MORTALITY 2022.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2022	Number of dead trees 2022	% mortality
Avendaño	1663	Cocobolo	*Dalbergia retusa*	1026	54	5%
		Amarillo	*Terminalia amazonia*	972	61	6%
Total, average				**1998**	**115**	**6%**

Average mortality in *Dalbergia retusa* and *Terminalia amazonia* species was also low in relation to the number of trees planted by each species.

Table 105. Executed Annual Operation Plan 2023

FARMS ALTOS DEL CRISTO																								
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Warehouse inventory and stocking	0	9.00	0	-	0	-	0	2.00	0	8.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	19
Chainsaw Operator Assistant	0	-	0	-	0	-	0	3.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	3
Weed control manual-slice for maintenence	26	21.00	0	-	11	25.00	0	-	0	-	0	39.00	11	-	0	6.00	0	59.00	0	2.00	0	-	0	-	48	152
Weed control - mechanical-Tractor	0	-	0	-	0	-	0	-	0	3.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	3
Weed control - chemical-Backpack Pump	0	-	0	-	7.3	-	0	-	0	-	0	-	7.3	9.00	0	-	0	-	0	35.00	7.3	23.00	0	-	22	67
Weed control manual-cleaning	0	33.00	0	8.00	7.3	20.00	0	18.00	0	56.00	0	-	7.3	-	0	8.00	0	-	0	-	7.3	-	0	-	22	143
Weed control manual-slice for maintenence	0	8.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	8
Weed control-chemichal in strips	0	8.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	8
Weed control-Strip Cleaning	0	-	0	-	4	5.00	0	-	0	4.00	0	-	4	24.00	0	-	0	-	0	391.00	4	42.50	0	-	12	467
Manual phytosanitary control -leaf-cutter ants	0	2.00	0	2.00	0	2.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	6
Fence construction	0	4.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	4

CPC-Fire Surveilance	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	-
Balance Lots for Marking.	0	-	0	-	0	-	0	-	0	16.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	16
Clearance	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	9.00	0	-	0	-	-	9
Tree clearance	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	-
Plant distribution	0	-	0	-	0	-	0	-	0	-	0	-	0	4.00	0	39.00	0	1.00	0	-	0	-	0	-	-	44
Establishment of fire break rounds	0	24.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	24
Granular fertilization	0	-	0	-	0	-	0	-	2.39	-	0	15.00	0	3.00	0	-	0	-	0	-	0	-	0	-	2	18
Initial Fertilization	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	19.00	0	-	0	-	0	-	0	-	-	19
Making planting-holes - manual	0	-	0	-	0	-	0	-	0	-	0	-	0	10.00	0	145.00	0	8.00	0	-	0	-	0	-	-	163
Contingencies	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	1.00	0	-	0	-	-	1
Limpieza y mantenimiento de infraestructura	0	-	0	-	0	-	0	9.00	0	12.00	0	3.00	0	4.00	0	-	0	-	0	1.00	0	-	0	-	-	29
Fence maintenance	0	-	0	-	0	-	0	15.00	0	-	0	15.00	0	11.00	0	-	0	-	0	-	0	-	0	-	-	41
Fence maintenance	0	9.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	9
Monitoring	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	1.00	0	-	0	-	0	-	-	1
Soil sampling	0	-	0	-	0	-	0	-	0	-	0	-	0	3.00	0	-	0	-	0	-	0	-	0	-	-	3
Chainsaw Operator	0	-	0	-	0	-	0	8.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	8
Manual planting	0	-	0	-	0	-	0	-	0	-	0	-	0	17.00	0	83.00	0	4.00	0	-	0	-	0	-	-	104
Firmation prunning	0	-	13.9	11.00	0	-	0	-	0	-	3.3	-	0	15.00	0	-	0	-	3.3	-	0	-	0	-	21	26
Replanted	0	-	0	-	0	-	0	-	0	-	0.24	-	0	-	0	4.00	0	11.00	0	-	0	-	0	-	0	15
Organic Mulch	0	-	0	49.00	0	-	11	-	0	-	0	-	0	-	0	-	11	-	0	-	0	-	0	-	22	49
Organic Mulch	0	-	0	-	0	-	11	-	0	-	0	-	0	-	0	-	11	-	0	170.00	0	110.75	0	-	22	281

Supervision	0	2.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	2
Contractor supervision	0	-	0	-	0	-	0	21.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	21
Processing of workers	0	-	0	-	0	-	0	-	0	1.00	0	-	0	-	0	11.00	0	-	0	-	0	-	0	-	-	12
Transfer of Supplies	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	15.00	0	-	-	15
Strip clearing	0	-	0	-	0	-	0	17.00	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	17
Strip clearing - marking	0	-	0	-	0	-	0	8.00	0	-	0	23.00	0	-	0	-	0	-	0	-	0	-	0	-	-	31
Strip clearing- cutting of marking	0	-	0	-	0	-	0	2.00	0	-	0	21.00	0	-	0	-	0	-	0	-	0	-	0	-	-	23
Grand Total	26	**120.00**	13.9	**70.00**	29.6	**52**	22	**47**	2.39	**99**	3.54	**72**	29.6	**65**	0	**217**	22	**68**	3.3	**439**	18.6	**66**	0	**-**	106.19	**1,860**

5.4. Farms in the province of Colón

Description development

In general, growth is within the expected ranges and a good development of the plantation in Farm Gatun 1 and La Conexión. In the province of Colon, the "El Niño" phenomenon has not been strong, as it is located in the Caribbean Sea of the country, which brings more rainfall. The rains have favored the growth of the plantation.

In 2023, a total of 40 hectares were reforested in Farm Gatun 2, thus completing the reforestation of the Cooperative's Farms in the province of Colon. The fire area affected in 2022 (a total of 4ha) had to be completely replanted.

During the reforestation in 2023, a conflict has been found with the neighbor adjacent to Farm Gatun 2. The neighbor has uprooted some of the seedlings (about 1 ha) and the case has been reported to the authorities of Colon. An inspection was then carried out together with the authorities and experts to define the damage caused. As an additional measure, surveillance and tours of the Farm have been increased with personnel, and more signs have been placed on the property, demonstrating presence in the area.

Pest attacks, diseases, or fire occurrences

Attacks by the *Leaf-cutter ants atta* have been reported, which maintain their nests inside the plantation or in the Farms of the neighbors, the cutters cut and carry fragments of tender leaves with aqueous content for the cultivation of the fungus. This activity depends on the times of abundance or scarcity of rainfall, in the latter case they do it at night between 6 and 10pm, they strip the seedlings of their leaves in its entirety slowing the growth of seedlings, the Farms we found anthills at different points, for control we do the manual application of Mirex, we create an action plan to prevent the formation of new anthills and the control or eradication of the present with permanent tours. So far it is under control.

5.4.1. Farm Gatún 1

Reforestation summary

Table 106. Categorization of reforested areas.

Farm Gatún 1 DP Expediente ADJ-3-98-2019					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2019	
Alcarreto	*Aspidosperma desmanthum*	5x3	666	1.92	1.92
Berbá	*Brosimum alicastrum*	5x3	666	0.52	0.52
María Chiquita	*Calophyllum brasilienses*	5x3	666	2.24	2.24
Bateo	*Carapa guianensis*	5x3	666	2.1	2.1
Cocobolo	*Dalbergia retusa*	5x3	666	8.4	8.4
Cocobolo	*Dalbergia retusa*	3x3	1111	1.95	1.95
Almendro	*Dipteryx panamensis*	5x3	666	2.21	2.21
Níspero	*Manilkara bidentata*	5x3	666	1.93	1.93
Caobillo	*Tapirira guianensis*	5x3	333	1.09	1.09
Amarillo	*Terminalia amazonia*	5x3	666	1.84	1.84
Amarillo	*Terminalia amazonia*	3x3	1111	3.04	3.04
Total reforested				**27.24**	**27.24**
Protection area					21.74
Total Surface Area					**48.98**

Map of the Farm

FIGURE 59. MAP OF THE FARM GATÚN 1.

Monitoring and growth data

Average growth of planted natives in 2019.

Based on the results presented in the following tables, the growth of the species has been good. Species such as Almendro, Alcarreto and Carapa, which have been planted with bare roots, have presented difficulties in their development. The growth of Cocobolo has been good despite not being a species of the area, it has adapted to the site conditions. On the other hand, the amarrillo has given a good response in its development and to the soil of the area, it has been identified that it requires good management for better growth. The species Maria, as well as the Caobillo, have reacted very well to the soil of the site.

Table 107. Growth data.

Common name	Scientific name	Planting year	Measuring year	Age	Tree/ha	Average DBH (cm)	Average Ht (m)	Average Hc (m)	IMA DAP	IMA Ht	AB (m2/ha)
Alcarreto	*Aspidosperma desmanthum*	2019	feb-23	3.8	11	NA	1.23	0.81	0.00	0.31	0.0000
Almendro	*Dipteryx panamensis*	2019	feb-23	3.8	100	1.37	0.91	0.64	0.34	0.23	0.0024
Berbá	*Brossimum alicastrum*	2019	feb-23	3.8	2	NA	0.57	0.30	0.00	0.14	0.0000
Caobillo	*Tapirira guianensis*	2019	feb-23	3.8	7	NA	0.99	0.66	0.00	0.25	0.0000
Carapa	*Carapa guianensis*	2019	feb-23	3.8	36	2.10	1.37	0.96	0.53	0.34	0.0059
Níspero	*Manilkara bidentata*	2019	feb-23	3.8	69	1.38	1.39	0.78	0.34	0.35	0.0039

Table 108. Growth data.

Common name	Scientific name	Planting year	Measuring year	Age	Tree/ha	Average DBH (cm)	Average Ht (m)	Average Hc (m)	IMA DAP	IMA Ht	AB (m2/ha)
Amarillo	*Terminalia amazonia*	2019	feb-22	2.8	65	2.71	2.59	1.61	0.96	0.91	0.0405
Amarillo	*Terminalia amazonia*	2019	feb-23	3.8	71	3.78	3.48	0.98	0.95	0.87	0.0898

Table 109. Growth data.

Common name	Scientific name	Planting year	Measurement year	Age	Arb/ha*	Average DBH (cm)	Average Ht (m)	IMA DAP	IMA Ht	AB (m2/ha)
Cocobolo	*Dalbergia retusa*	2019	feb-22	2.8	73	2.13	3.42	0.71	1.14	0.0271
Cocobolo	*Dalbergia retusa*	2019	feb-23	3.8	125	2.35	3.61	0.59	0.90	0.0594

Table 110. Growth data.

Common name	Scientific name	Planting year	Measurement year	Age	Arb/ha*	Average DAP (cm)	Average Ht (m)	Average Hc (m)	IMA DAP	IMA Ht	AB (m2/ha)
María	*Calophyllum brasiliense*	2019	feb-22	2.8	5	1.10	2.33	0.00	0.37	0.78	0.0005
María	*Calophyllum brasiliense*	2019	feb-23	3.8	16	1.99	2.92	0.88	0.50	0.73	0.0053

*The increase in the number of trees per hectare (tree/ha) is due to the growth in diameter of some planted trees that are included in the monitoring records. Taking into account the trees with a minimum height of 1.5 m and a diameter of 1 cm.

Table 111. Executed Annual Operation Plan 2023

FARM GATUN 1																									
DESCRIPCION		**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
ACTIVIDAD / CODIGO		**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Shed Construction	I 8	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Weed control manual-slice of maintenenace	M7	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Phytosanitary control-chemical-fungal	M12	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Weed control - slices of establishment	E7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	6
Weed control manual - Liana Cutting	M8	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Weed control manual-cleaning	M6	-	11	-	12	-	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70
Weed control-Strip Cleaning	M38	11	-	22	-	25	-	22	23	25	20	24	68	23	36	25	93	23	159	24	-	24	-	23	-	267	399
Weed control-mechanical- tractor	M10	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Weed control-mechanical-Güira	M9	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Manual phytosanitary control -leaf-cutter ants	M13	-	2	-	2	91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	91	4
Manual phytosanitary control -Hypsipyla grandella	M14	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Phytosanitary control-chemical - Hypsipyla grandella	M11	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4

CPC Fires-establishment of fire break rounds	M49	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
CPC- Fires-maintenance of fire break rounds	M46	-	2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
CPC Fires-mechanical	M47	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
CPC-Fires-road sweeping	M48	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
CPC-Fire Surveilance	M50	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Removal of sprouts	M17	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Clearance	M26	-	-	4	-	20	-	-	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	52	
Foliar fertilization	M15	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Granular fertilization	M16	-	1	-	-	-	-	-	-	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	1	
Making planting-holes - manual	E24	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2
Contingencies	M32	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Marking for thinning	M19	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Formation pruning	M18	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Thinnings	M20	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Transfer to a mechanical workshop	M24	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Transfer to yard manual	M23	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Transfer to loading point	M22	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Strip clearing	E4	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	9	-	-	-	-	-	-	-	-	-	-	10
Slicing	M21	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Grand Total		**11**	**43**	**26**	**41**	**136**	**47**	**22**	**83**	**58**	**20**	**24**	**68**	**23**	**38**	**25**	**99**	**23**	**159**	**24**	**-**	**24**	**-**	**23**	**-**	**415**	**610**

5.4.2. Farm No. 4516 Gatún 2

Reforestation summary

Table 112. Categorization of reforested areas.

Farm No. 4516 - Gatún 2					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2023	
Almendro	*Dipteryx panamensis*	3x4	833	1.91	1.91
Almendro y Mayo	*Dipteryx panamensis y Vochysia sp.*	3x4	833	0.1	0.1
Almendro, Amarillo y Jacaranda	*Dipteryx panamensis, Terminalia amazonia y Jacaranda copaia*	3x4	833	4.18	4.18
Aceituno, Almendro y María	*Simarouba amara, Dipteryx panamensis y Calophyllum brasiliense*	3x4	833	0.44	0.44
Amarillo	*Terminalia amazonia*	3x4	833	6.33	6.33
Carapa	*Carapa guianensis*	3x4	833	14.09	14.09
María, Almendro y Amarillo	*Calophyllum brasiliense, Dipteryx panamensis y Terminalia amazonia*	3x4	833	0.5	0.5
Almendro, Aceituno y Mayo	*Dipteryx panamensis, Simarouba amara y Vochysia sp.*	3x4	833	0.3	0.3
Plantación Mixta		3x4	833	12.15	12.15
Total reforested				**40.00**	**40.00**
Protection area					9.89
Infrastructure					0.11
Total Surface Area					**50.00**

Map of the Farm

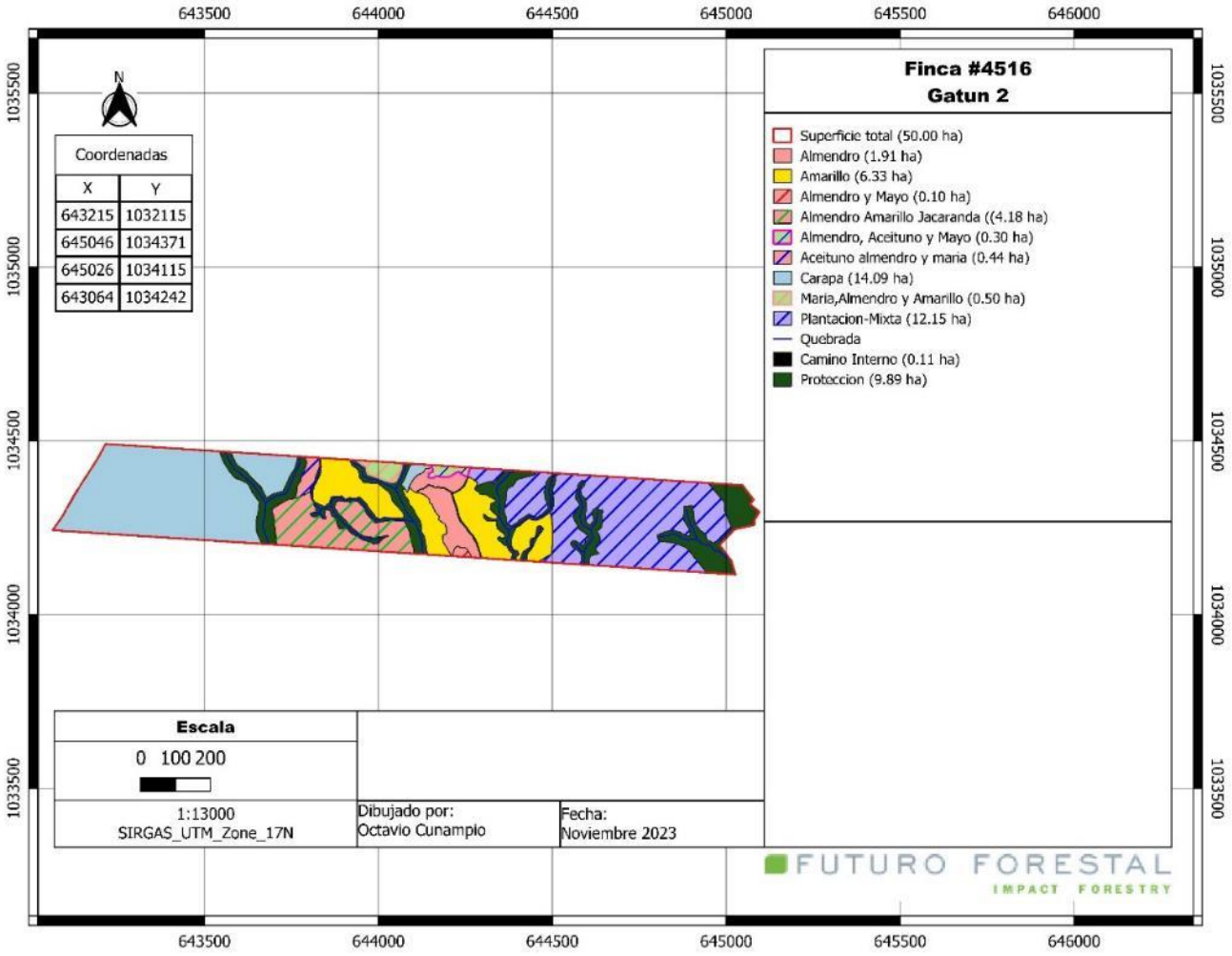


FIGURE 60. MAP OF THE FARM GATÚN2 (NO. 4516).

Table 113. Executed Annual Operation Plan 2023

FARM GATUN 2																										
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Shed Construction	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Fence construction	-	-	-	-	-	32	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56
Weed control – chemical - Backpack Pump	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	8
Weed control - slices of establishment	-	-	-	-	25	-	25	-	25	-	25	-	23	62	-	93	-	95	-	172	-	47	-	-	123	469
Weed control manual-cleaning	-	-	-	-	-	11	-	-	20	-	-	-	-	-	113	-	93	-	113	-	-	-	12	-	351	11
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	11	-	-	-	-	-	11	12	74	-	11	-	74	-	-	-	183	12
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	-	-	24
Making planting-holes - manual	-	-	-	-	61	-	62	-	62	-	62	-	62	22	-	102	-	-	-	48	-	-	-	-	309	172
Cleaning and maintenance of infrastructure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	7	-	-	-	19
Boundary Marking-Cleaning for Topographer	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Manual Planting	-	-	-	-	-	-	-	-	-	-	65	-	65	4	65	-	65	114	-	244	-	48	-	-	260	410
Strip clearing	-	-	70	-	95	-	95	-	45	-	23	-	-	166	-	145	-	70	-	84	-	35	-	-	326	500
Strip clearing - cutting markings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	34
Grand Total	**-**	**43**	**70**	**41**	**181**	**47**	**182**	**83.**	**163**	**20**	**175**	**68**	**150**	**38**	**189**	**99**	**232**	**159**	**124**	**-**	**74**	**-**	**12**	**-**	**1,552**	**1,735**

5.4.3. Farm No. 6704 Conexión

Reforestation summary

Table 114. Categorization of reforested areas.

Farm 6704 - La Conexión					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2019	
Mixed Natives		3x5	666	5.07	5.07
Total reforested				**5.07**	**5.07**
Protection area					43.92
Total Surface Area					**48.99**

Map of the Farm

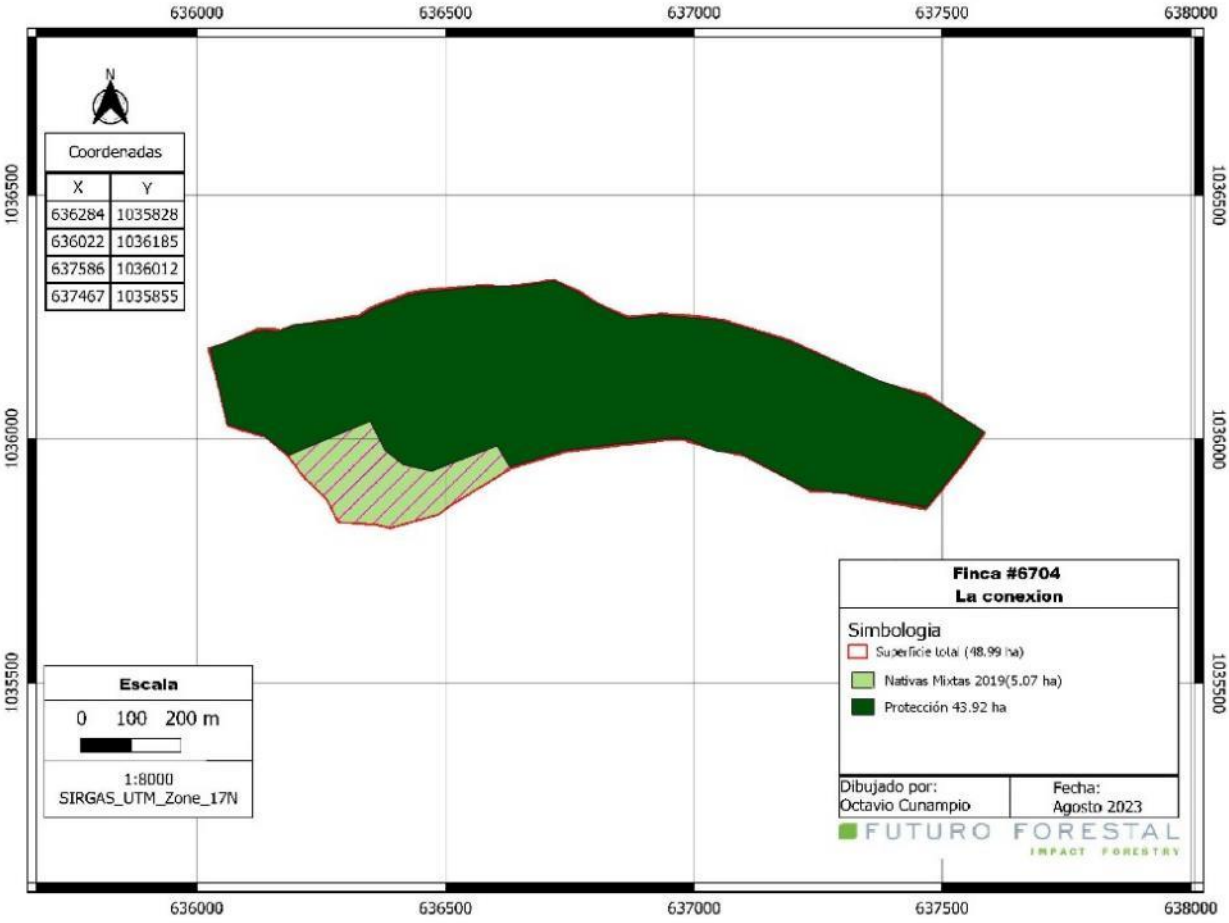


FIGURE 61. MAP OF THE FARM CONEXIÓN (NO. 6704).

Monitoring and growth data

The growth of the Cocobolo and Maria species has shown good growth since planting, responding well to the site. It is worth mentioning that the Almendro and Alcarreto species were planted with bare root, which has limited their optimal development.

Table 115. Growth data

Colón **Growth data:Conexión** **2020**

Common name	Scientific name	Planting year	Measurement year	Age	Tree/ha	Average DAP (cm)	Average Ht (m)	Average Hc (m)	IMA DAP	IMA Ht	AB (m2/ha)
Aceituno	*Simarouba amara*	2020	mar-22	1.8	10	1.80	2.60	2.07	1.03	1.49	0.0025
Alcarreto	*Aspidosperma desmanthum*	2020	feb-23	2.8	10	NA	0.71	0.52	0.00	0.24	0.0000
Níspero	*Manilkara bidentata*	2020	feb-23	2.8	150	1.30	1.14	0.78	0.43	0.38	0.0013

Table 116. Growth data

Colón **Growth data: Conexión** **2020** **Cocobolo**

Common name	Scientific name	Planting year	Measurement year	Age	Tree/ha	Average DAP (cm)	Average Ht (m)	IMA DAP	IMA Ht	AB (m2/ha)
Cocobolo	*Dalbergia retusa*	2020	mar-22	1.8	100	1.73	3.21	0.87	1.61	0.0248
Cocobolo	*Dalbergia retusa*	2020	feb-23	2.8	100	2.25	3.46	0.75	1.15	0.0412

Table 117. Growth data

Colón **Growth data: Conexión** **2020** **Almendro**

Common name	Scientific name	Planting year	Measurement year	Age	Tree/ha	Average DAP (cm)	Average Ht (m)	Average Hc (m)	IMA DAP	IMA Ht	AB (m2/ha)
Almendro de montaña	*Dipteryx panamensis*	2020	mar-22	1.8	30	1.43	1.87	1.37	0.72	0.93	0.0051
Almendro de montaña	*Dipteryx panamensis*	2020	feb-23	2.8	30	2.57	2.82	1.56	0.86	0.94	0.0173

Table 118. Growth data

Colón **Growth data: Conexión** **2020** **María**

Common name	Scientific name	Planting year	Measurement year	Age	Tree/ha	Average DAP (cm)	Average Ht (m)	Average Hc (m)	IMA DAP	IMA Ht	AB (m2/ha)
María	*Calophylum brasiliense*	2020	mar-22	1.8	50	1.18	2.30	1.25	0.59	1.15	0.0055
María	*Calophylum brasiliense*	2020	feb-23	2.8	240	1.61	1.99	1.02	0.54	0.66	0.0526

* The increase in the number of trees per hectare (Tree/ha) is due to the growth in diameter of some planted trees that are included in the monitoring records. Taking into account the trees with a minimum height of 1.5 m and a diameter of 1 cm.

Table 119. Executed Annual Operation Plan 2023

FARM CONEXIÓN																											
DESCRIPCION	Code	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels		Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Weed control manual - Liana Cutting	M8	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Weed control-Strip Cleaning	M38		-	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-	53	40
Clearance	M26		1	80	-	12	-	-	-	-	5	-	16	-	-	-	-	-	-	-	1	-	-	-	-	92	23
Granular fertilization	M16		-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	16	-	-	-	-	-	18	6	34
Strip clearing	E4		-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	3	-	-	-	8
Grand Total			**1.00**	**133**	**-**	**12**	**-**	**-**	**-**	**6**	**8.00**	**-**	**16.00**	**-**	**-**	**-**	**5.00**	**-**	**56.00**	**-**	**1.00**	**-**	**3.00**	**-**	**18.00**	**151**	**108.00**

5.5. Nicanor Unit

Description development

In general, growth has been within the expected range and the plantation has developed well. As in the Lastenia Unit, there is a higher than usual mortality rate as a result of the "El Niño" phenomenon. In addition, the strategy of replacing some species in low sites that retain more humidity was applied. Roble (*Tabebuia rosea*), which tolerates higher humidity, was planted. Natural regeneration is managed in the sites.

Some cleaning and maintenance activities were affected in the last quarter of the year due to budget cuts and staff reductions. As a result, it was not possible to implement all the planned activities, and some were postponed until the beginning of 2024.

Pest attacks, diseases, or fire occurrences

It is important to mention that, to date, no fires have been reported in the plantations, due to the prevention measures implemented each summer (firebreak, personnel training and monitoring).

Similarly, no significant findings of diseases or pests affecting the plantations have been reported. Although there have been attacks of the meliaceae borer (*Hypsipyla grandella*) in lots of cedar (*Cedrela odorata*) and mahogany (*Swietennia macrophylla*), manual-chemical controls and periodic monitoring of the plantation are carried out.

5.5.1. Farm No. 1182 Nicanor 1

Reforestation summary

Table 120. Categorization of reforested areas.

Farm No. 1182 - Nicanor 1						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Almendro	*Dipteryx panamensis*	3x4	833	0.33		0.33
Amarillo	*Terminalia amazonia*	3x4	833	0.92	0.42	1.34
Caoba	*Swietenia macrophylla*	3x4	833	0.33	0.29	0.62
Cedro Amargo	*Cedrela odorata*	3x4	833	1.10	0.25	1.35
Cocobolo	*Dalbergia retusa*	3x4	833		1.26	1.26
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	8.49		8.49
Cocobolo y Ormosia	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	0.34		0.34
Laurel	*Cordia alliodora*	3x4	833		0.25	0.25
Roble	*Tabebuia rosea*	3x4	833	1.73		1.73
Teak	*Tectona grandis*	4x5	500	3.08		3.08
Total reforested				**16.32**	**2.47**	**18.79**
Regeneration of Caoba						**0.15**
Area to plant						4.53
Protection area						10.02
Stream area						2.50
Infrastructure						0.72
Fire break						0.39
Total Surface Area						**37.10**

Map of the Farm

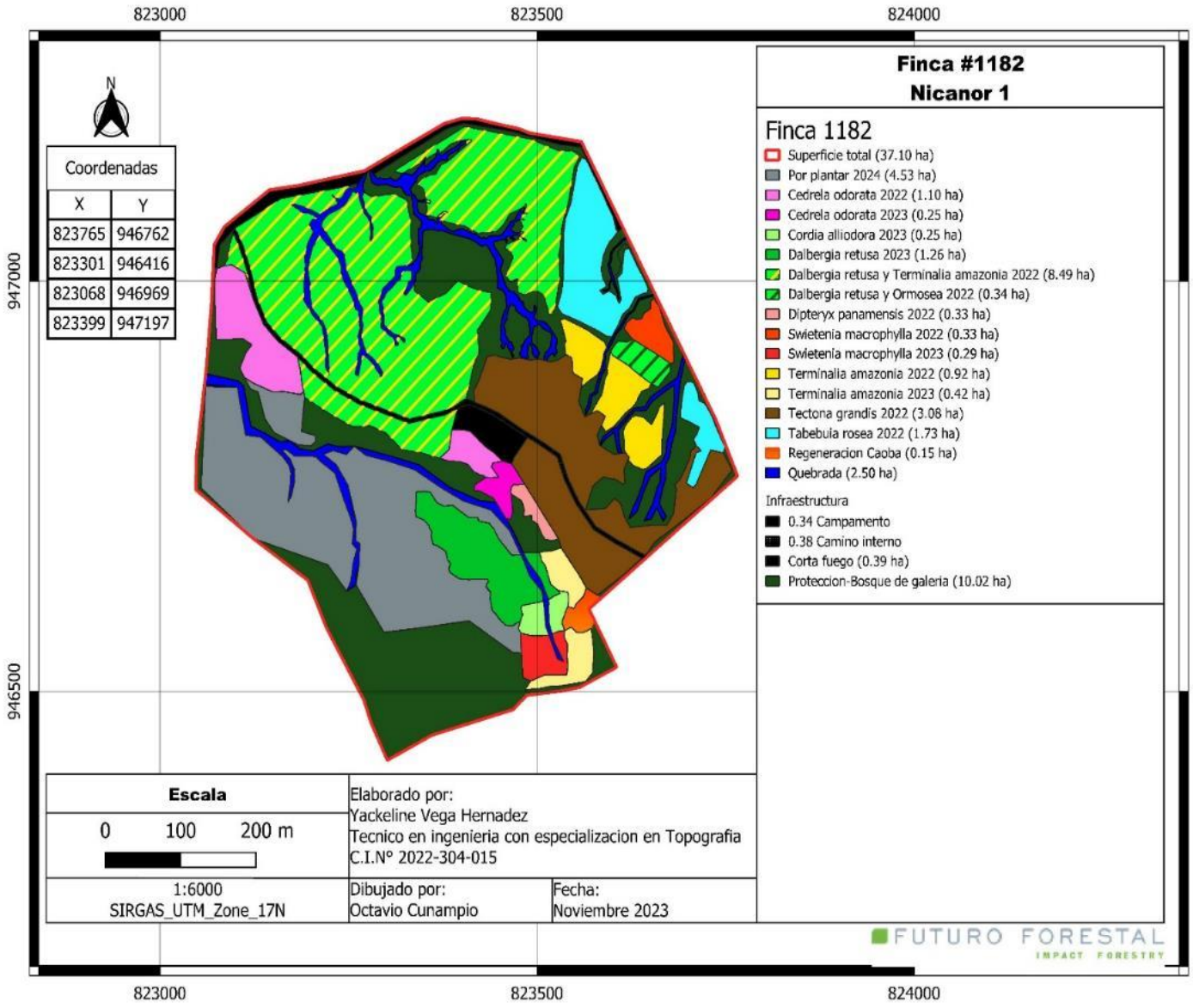


FIGURE 62. MAP OF THE FARM NICANOR 1 (NO. 1182).

Planting Mortality 2022

Table 121. **PLANTING MORTALITY 2022.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2022	Number of dead trees 2022	% mortality
Nicanor # 1 (Dalia Vega)	**1182**	Teak	*Tectona grandis*	1540	52	3%
		Cocobolo	*Dalbergia retusa*	3665	404	11%
		Amarillo	*Terminalia amazonia*	4312	256	6%
		Roble	*Tabebuia rosea*	1441	638	44%
		Cedro	*Cedrela odorata*	918	34	4%
		Ormosia	*Ormosia coccinea*	141	18	13%
		Almendro	*Dipteryx panamensis*	277	124	45%
		Caoba	*Swietenia macrophylla*	274	231	84%
Total, average				**12568**	**1757**	**14%**

Due to the El Niño climatic phenomenon, the summer in 2023 was longer, which caused water stress to certain species planted in 2022, especially Almond, Roble and Mahogany. As shown in the table below, these species have had high mortality. The oak was planted bare-root, which is why it has been more affected.

Preliminary mortality Planted 2023

Table 122. **PRELIMINARY PLANTING MORTALITY 2023.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2023	% mortality
Nicanor # 1 (Dalia Vega)	**1182**	Cedro	*Cedrela odorata*	210	1%
		Caoba	*Swietenia macrophylla*	245	2%
		Amarillo	*Terminalia amazonia*	350	4%
		Cocobolo	*Dalbergia*	1050	5%
		Laurel	*Cordia alliodora*	210	1%
Total, average				2065	3%

In November 2023 a survey was conducted to determine FAD mortality, which proved to be low; however, another survey will be conducted after the summer to determine the actual mortality.

Table 123. Executed Annual Operation Plan 2023

Farm No. 1182 - Nicanor 1																										
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed control - manual-cleaning	-	-	-	-	-	26	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
Weed control manual-cleaning	-	-	29	24	82	14	-	-	-	16	-	21	-	3	15	28	-	35	67	-	-	1	-	-	193	142
Weed control-Strip Cleaning	-	25	-	-	-	-	-	-	-	-	58	43	-	15	19	70	-	16	-	101	-	26	-	-	77	296
Manual phytosanitary control -leaf-cutter ants	-	1	9	5	11	5	9	-	9	-	9	-	9	-	9	-	9	-	9	-	9	-	9	-	97	11
Replanted	-	-	-	-	-	-	-	-	3	-	28	-	-	12	-	-	-	-	-	-	-	-	-	-	31	12
Supervision	-	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Weed control manual-slice for maintenence	44	52	18	-	8	97	65	-	-	-	-	-	65	-	-	15	5	-	-	8	1	-	-	-	206	172
Processing of workers	-	-	-	-	-	-	-	12	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
Contingency	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Establishment of fire break rounds	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27
CPC-Fire Surveilance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Formation prunning	-	-	1	1	13	-	-	-	-	-	1	-	-	12	13	-	-	-	-	-	1	-	13	-	42	13
Contractor supervision	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Fence maintenance	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	10
Cleaning and maintenance of infrastructure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	3
Phytosanitary control -	-	-	-	-	-	-	1	-	1	1	1	1	1	-	1	-	1	-	1	-	1	-	1	-	9	2

Chemical - Hypsipyla grandella																									
Weed control - chemical- Backpack Pump	-	-	-	-	45	-	54	-	-	-	-	-	54	28	-	-	-	-	-	-	45	-	-	-	196	28
Clearance	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	13
Weed control- chemical by strip	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Strip clearing - marking	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	7
Granular fertilization	-	-	-	-	-	-	-	-	6	-	10	-	-	44	-	-	-	-	-	-	-	-	-	-	16	44
Contingency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	8
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	23	-	-	-	-	-	-	-	-	-	33
Manual Planting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	20
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	8
GPS Survey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deschupado	-	-	3	3	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	3	-	-	-	9	3
Tree clearing	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Weed control manual - Liana Cutting	-	1	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	22
Removal of sprouts	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2
Organic Mulch	-	-	-	9	14	5	-	-	-	-	-	-	-	-	15	-	46	11	5	-	-	-	-	-	80	25
Manual phytosanitary control- Hypsipyla grandella	-	-	-	-	-	-	1	-	1	-	1	-	1	-	1	-	1	5	1	-	1	-	1	-	12	5
Supervision	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2
Processing of workers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	22	-	27	-	-	-	-	-	52
Grand Total	**44**	**130.00**	**59**	**43.00**	**172**	**164.00**	**130**	**12.00**	**21**	**31.00**	**110**	**65.00**	**130**	**160.00**	**73**	**177.00**	**62**	**98.00**	**83**	**137.00**	**61**	**27.00**	**24**	**-**	**969**	**1,044.00**

5.5.2. Farm No. 5553 Nicanor 2

Reforestation summary

Table 124. Categorization of reforested areas.

Farm No. 5553 - Nicanor 2						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Caoba	*Swietenia macrophylla*	3x4	833		2.58	2.58
Cedro Amargo	*Cedrela odorata*	3x4	833	1.51		1.51
Cocobolo	*Dalbergia retusa*	3x4	833		5.43	5.43
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	4.64	2.9	7.54
Jagua y Panamá	*Genipa americana* y *Sterculia apetala*	3x4	833			
Roble	*Tabebuia rosea*	3x4	833			
Teak	*Tectona grandis*	4x5	500	4.2		4.2
Total, reforested				**10.35**	**10.91**	**21.26**
Area to plant						4.24
Protection area						7.12
Stream area						1
Downslope area						0.63
Infrastructure						0.44
Fire break						0.44
Total Surface Area						**35.13**

Map of the Farm

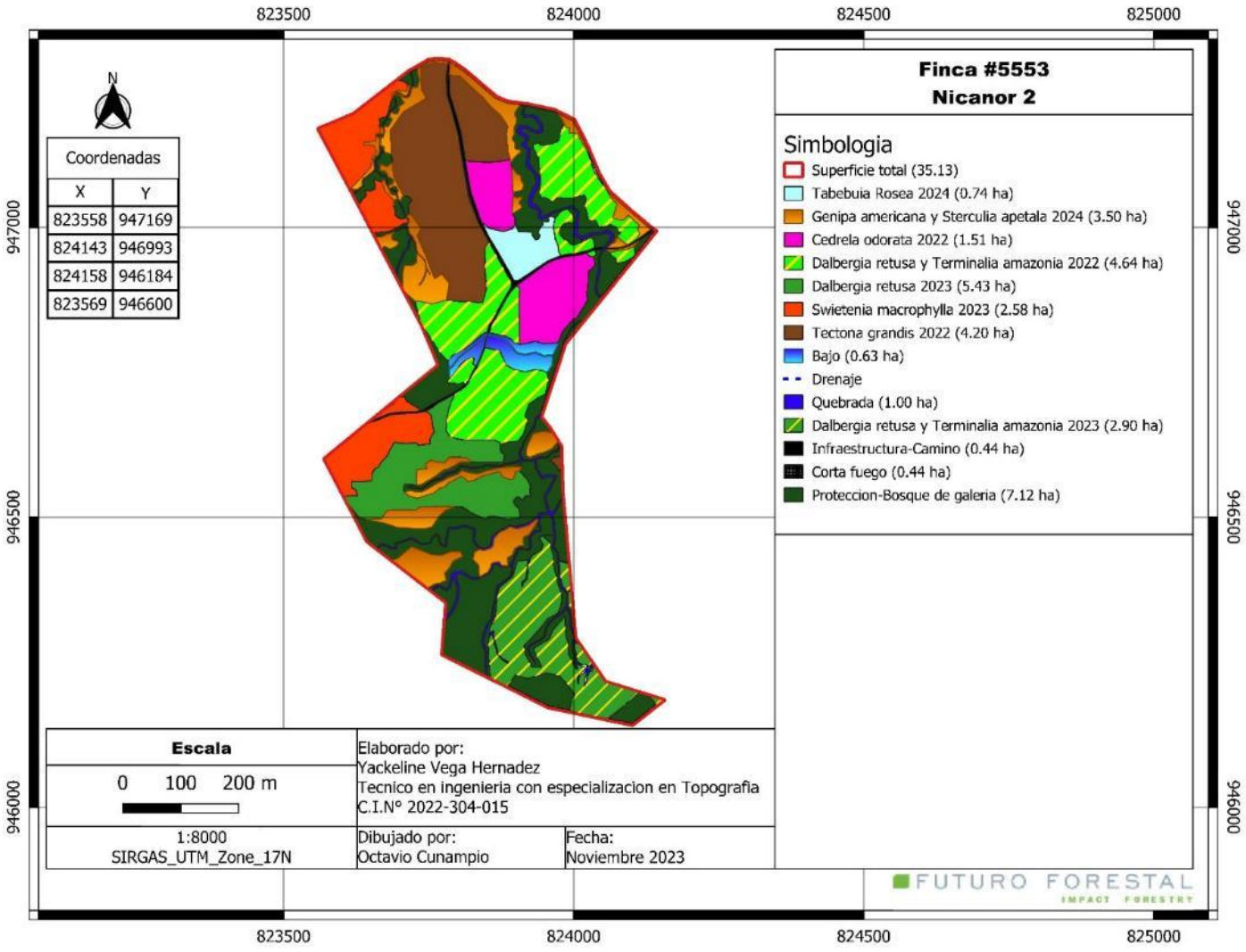


FIGURE 63. MAP OF THE FARM NICANOR 2 (NO. 5553).

Planting Mortality 2022

Table 125. **PLANTING MORTALITY 2022.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2022	Number of dead trees 2022	% mortality
Nicanor # 2 (Jennifer Moreno)	**5553**	Teak	*Tectona grandis*	2099	900	43%
		Cedro	*Cedrela odorata*	1254	156	12%
		Cocobolo	*Dalbergia retusa*	1890	72	4%
		Amarillo	*Terminalia amazonia*	1973	32	2%
		Berbá	*Brossimum alicastrum*	402	402	100%
		Roble	*Tabebuia rosea*	350	350	100%
Total, average				**7968**	**1912**	**24%**

As shown in the table above, the species with the highest percentage of mortality were *Brossimum alicastrum and Tabebuia rosea*, which were planted bare root at the end of August.

Preliminary planting mortality 2023

Table 126. **PLANTING MORTALITY 2023.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2023	% mortality
Nicanor #2 (Jennifer Moreno)	**5553**	Caoba	*Swietenia macrophylla*	1890	7%
		Cocobolo	*Dalbergia retusa*	3255	4%
Total, average				5145	6%

The mortality represented in this table was obtained by random sampling in the areas planted this year. This sampling was done by taking a sample of 10% of the planted area in each lot, marking small sampling plots and collecting data on live trees, dead trees within each plot, it is important to mention that this sampling is done after establishment and thus know the adaptability of the species.

Table 127. Executed Annual Operation Plan 2023

Farm No. 5553 - Nicanor 2																										
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Weed control manual - slices of maintenence	24	9	-	-	25	-	21	-	5	-	-	-	21	-	27	-	5	9	-	-	-	-	-	-	127	18
Weed control manual-cleaning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3	-	-	-	-	-	6
Weed control-Strip Cleaning	-	-	-	-	-	-	25	-	5	-	-	65	25	-	-	-	28	45	9	4	-	50	-	-	92	164
Control fitosanitario manual-leaf-cutter ants	-	-	6	4	6	-	7	-	6	-	7	-	7	-	7	-	7	-	6	-	8	-	6	-	69	4
Replanted	-	-	-	-	-	-	-	-	1	-	0	-	-	12	-	-	-	-	-	-	-	-	-	-	1	12
Supervision	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Organic Mulch	-	-	-	16	-	-	-	-	-	-	5	-	-	-	-	-	49	-	5	-	-	-	-	-	58	16
Formation prunning	-	-	6	-	-	-	-	-	-	-	6	-	-	10	-	-	-	-	-	-	6	-	1	-	20	10
Fence maintenance	-	9	-	8	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Cleaning and maintenance of infrastructure	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	9
Phytosanitary control -chemical -Hypsipyla grandella	-	-	-	-	-	-	1	-	-	1	1	2	1	-	1	-	1	-	1	-	1	-	1	-	9	3
Weed control - chemical-Backpack Pump	-	-	-	-	35	-	34	-	-	-	-	-	34	42	-	-	-	-	-	-	34	-	-	-	136	42
Weed control-chemical in strips	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Strip clearing - marking	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	6
Granular fertilization	-	-	-	-	-	-	-	-	6	-	5	-	-	16	-	-	-	-	-	-	-	-	-	-	10	16
Contingencies	-	-	-	2	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	6
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	85	-	-	-	-	-	-	-	-	-	97

Manual planting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78	-	-	-	-	-	-	-	-	-	78
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	23
Weed control manual - Liana Cutting	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	14
Manual phytosanitary control- Hypsipyla grandella	-	-	-	-	-	-	2	-	-	-	2	-	2	-	2	-	2	6	2	-	2	-	2	-	13	6
Weed control- manual cleaning	-	-	-	70	-	-	-	62	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	152
Weed control – slices of establishment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	6
Supervision	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Grand Total	**24**	**19.00**	**12**	**108.00**	**65**	**-**	**89**	**62.00**	**22**	**30.00**	**25**	**67.00**	**89**	**110.00**	**36**	**198.00**	**90**	**63.00**	**22**	**7.00**	**50**	**53.00**	**9**	**-**	**534**	**717.00**

5.5.3. Farm No. 1519 Nicanor 3

Reforestation summary

Table 128. Categorization of reforested areas.

Farm No. 1519 - Nicanor 3						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Almendro	*Dipteryx panamensis*	4x3	833		1.79	1.79
Caoba	*Swietenia macrophylla*	4x3	833		0.42	0.42
Cedro Amargo	*Cedrela odorata*	4x3	833		1.30	1.30
Cocobolo	*Dalbergia retusa*	4x3	833		5.94	5.94
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	4x3	833		2.96	2.96
Jagua y Panamá	*Genipa americana* y *Sterculia apetala*	4x3	833			
Laurel	*Cordia alliodora*	4x3	833		0.71	0.71
Roble	*Tabebuia rosea*	4x3	833		7.83	7.83
Teak	*Tectona grandis*	4x5	500	10.00		10.00
Total, reforested				**10.00**	**20.95**	**30.95**
Area to plant						6.56
Protection area						7.07
Stream area						1.13
Artificial lake						0.10
Infrastructure						1.22
Fire break						0.60
Total Surface Area						**47.63**

Map of the Farm

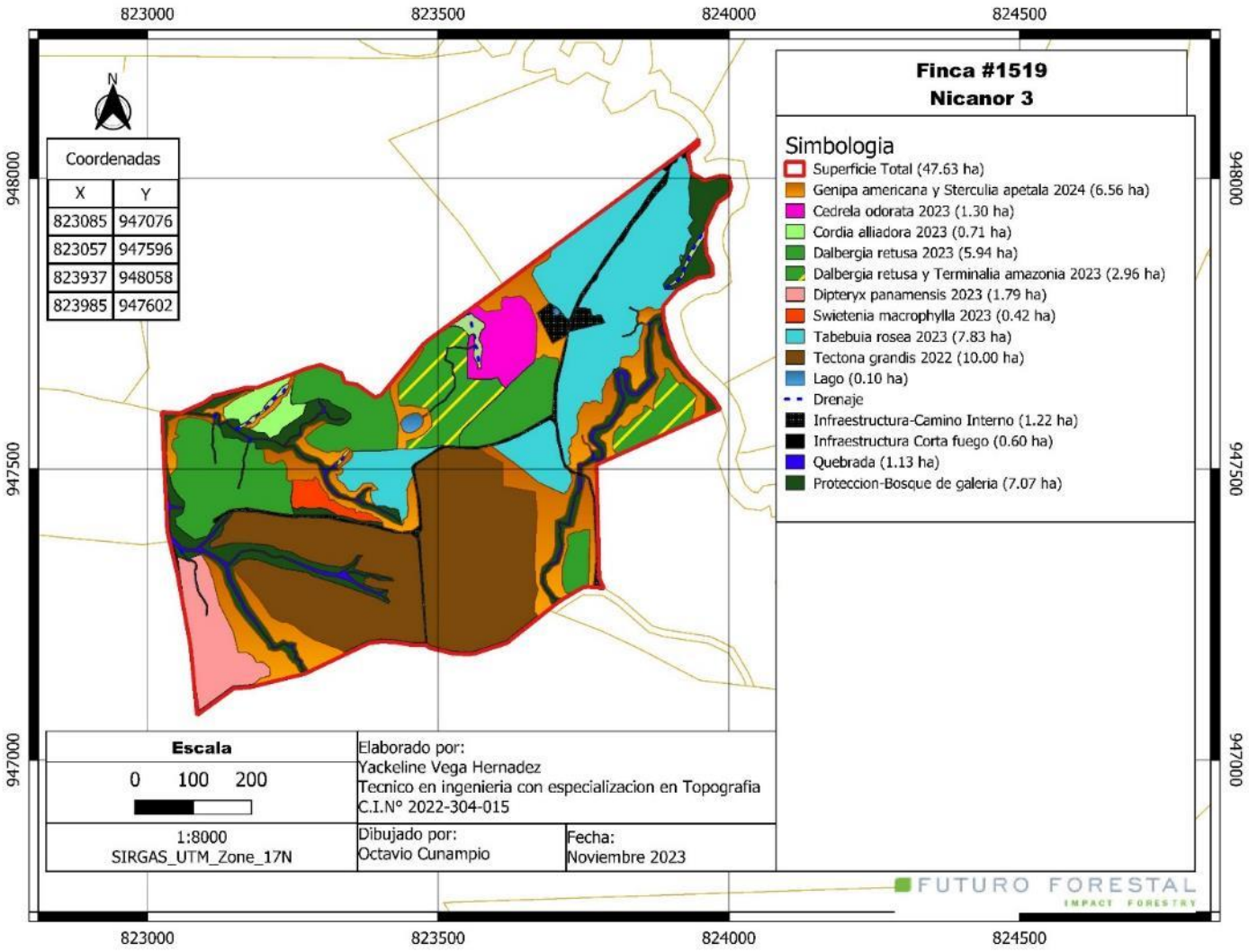


FIGURE 64. MAP OF THE FARM NICANOR 3 (NO. 1519).

Preliminary Planting Mortality 2023

Table 129. **PERCENTAGE OF PLANTING MORTALITY OF YEAR 2023.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2023	% mortality
Nicanor # 3 (Elizabeth Moreno)	**1519**	Caoba	*Swietenia macrophylla*	371	2%
		Cocobolo	*Dalbergia retusa*	5099	4%
		Roble	Tabebuia rosea	6475	5%
		Cocobolo	*Dalbergia retusa*	1190	3%
		Amarillo	*Terminalia amazonia*	1225	2%
		Laurel	*Cordia alliodora*	630	1%
		Cedro amargo	*Cedrela odorata*	875	5%
		Almendro de montaña	*Dipteryx panamensis*	1190	5%
Total, average				17055	3%

In the case of 2022 teak, there is a low mortality of 6% in the same year of planting.

Planting Mortality 2022

Table 130. **PERCENTAGE OF PLANTING MORTALITY OF YEAR 2022.**

Farm	N° Farm	Species	Number of trees planted 2022	Number of dead trees 2022	% mortality
Nicanor # 3 (Elizabeth Moreno)	**1519**	Teak- *Tectona grandis*	5000	300	6%
Total, average			**5000**	**300**	**6%**

The result of the average mortality of planted native species in 2023 is relatively low (3%) with the amount of trees planted.

Table 131. Executed Annual Operation Plan 2023

Farm No. 1519 - Nicanor 3																									
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed control - manual-cleaning	-	-	-	-	-	16	-	226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	242
Weed control manual-cleaning	-	-	-	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-	-	70	-	-	-	-	-	89
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	49	-	-	-	-	-	138	60	-	-	-	-	-	60	187
Manual phytosanitary control -leaf-cutter ants	-	2	3	3	3	-	3	-	3	-	3	-	3	-	3	-	3	-	3	-	3	-	3	-	33	5
Supervision	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Weed control manual-slice for maintenence	25	19	-	-	22	-	25	-	-	-	-	-	25	-	-	-	-	-	-	-	21	-	-	-	118	19
Fence maintenance	-	6	-	-	-	-	-	7	-	2	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	16
Weed control - chemical-Backpack Pump	-	-	-	-	30	-	30	-	-	-	-	-	30	21	-	-	-	-	-	-	30	-	-	-	120	21
Weed control- chemical in strips	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Strip clearing -marking	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	10
Granular fertilization	-	-	-	-	-	-	-	-	20	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	20	23
Contingencies	-	-	-	9	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	51	-	-	-	-	-	-	-	-	-	58

Manual Planting	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	43	-	-	-	-	-	-	-	-	-	53
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	19	-	-	-	-	-	-	-	-	-	29
Establish fire breaks	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Weed control-mechanical-Güira	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
CPC-Fire Surveillance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tree Unsucker	-	-	10	12	-	-	-	-	-	-	10	-	-	-	-	-	-	-	10	-	-	-	-	-	30	12
Contractor supervision	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Chainsaw Operator	-	16	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Processing of workers	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Tree clearing	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Weed control - mechanical-Tractor	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Removal of sprouts	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	7
Initial Fertilization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	41	-	-	-	-	-	-	-	46
Organic Mulch	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	57	108	-	-	-	-	-	-	57	129
Supervision	-	5	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Processing of workers	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Grand Total	**25**	**69.00**	**13**	**47.00**	**55**	**21.00**	**58**	**242.00**	**23**	**51.00**	**13**	**66.00**	**58**	**78.00**	**3**	**128.00**	**60**	**287.00**	**73**	**71.00**	**54**	**-**	**3**	**-**	**438**	**1,060.00**

5.5.4. Farm No. 1781 Nicanor 4

Reforestation summary

Table 132. Categorization of reforested areas.

Farm No. 1781 - Nicanor 4						
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**		**Reforested surface/ species (ha)**
Common name	**Scientific name**			2022	2023	
Caoba	*Swietenia macrophylla*	3x4	833		1.16	1.16
Cedro amargo	*Cedrela odorata*	3x4	833		0.73	0.73
Cocobolo	*Dalbergia retusa*	3x4	833		2.11	2.11
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	1.44	5.54	6.98
Guayacán morado	*Tabebuia impetiginosa*	3x4	833		0.95	0.95
Jagua y Panamá	*Genipa americana* y *Sterculia apetala*	4x3	833			
Roble	*Tabebuia rosea*	3x4	833		6.61	6.61
Ron Ron	*Astronium graveolens*	3x4	833		0.92	0.92
Teak	*Tectona grandis*	4x5	500	4.16		4.16
Total, reforested				**5.60**	**18.02**	**23.62**
Area to plant						3.14
Protection area						18.81
Stream area						1.36
Artificial lake						0.45
Infrastructure						0.74
Total Surface Area						**48.12**

Map of the Farm

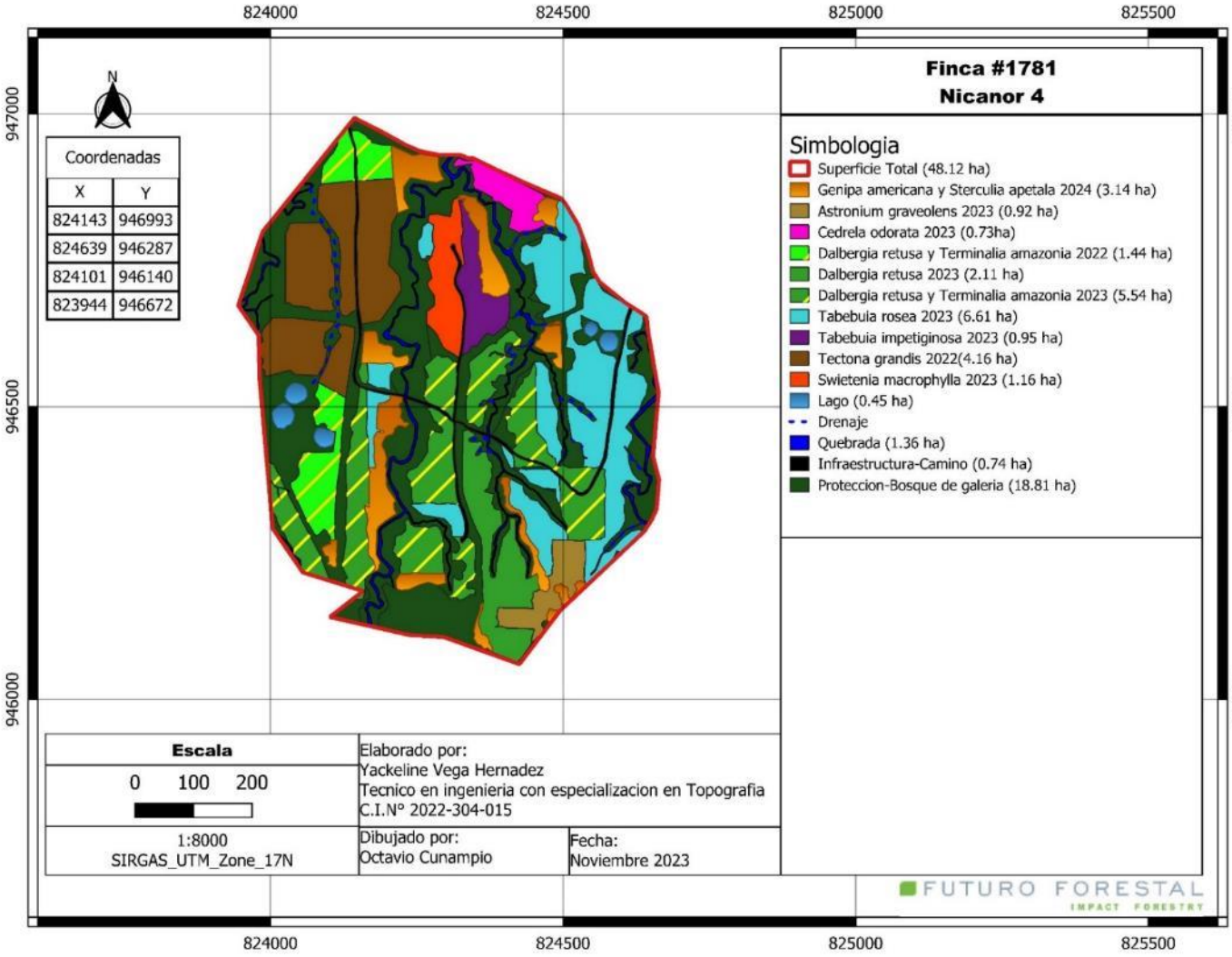


FIGURE 65. MAP OF THE FARM NICANOR 4 (NO. 1781).

Planting Mortality 2022

Species planted in 2022 and 2023 on this Farm demonstrate low mortality and good drought resistance.

Table 133. **PERCENTAGE OF PLANTING MORTALITY 2022.**

Farm	N° Farm	Common name	Scientific name	Cantidad de árboles plantado 2022	Cantidad de árboles muertos 2022	% mortalidad
Nicanor # 4 (Ruben Sanchez)	**1781**	Cocobolo	*Dalbergia retusa*	630	45	7%
		Amarillo	*Terminalia amazonia*	567	23	4%
		Teak	*Tectona grandis*	2080	165	8%
Total, average				**3277**	**233**	**7%**

Preliminary Planting Mortality 2023

Table 134. **PLANTING MORTALITY PERCENTAGE 2023.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2023	% mortality
Nicanor # 3 (Elizabeth Moreno)	**1519**	*Roble*	*Tabebuia rosea*	4935	7%
		Ron Ron	*Astronium graveolens*	840	3%
		Cedro amargo	*Cedrela odorata*	1190	5%
		Guayacán morado	*Tabebuia impetiginosa*	840	6%
		Cocobolo	*Dalbergia retusa*	2345	4%
		Caoba	*Swietenia macrophylla*	910	8%
		Cocobolo	*Dalbergia retusa*	2048	6%
		Amarillo	*Terminalia amazonia*	2013	6%
Total, average				15121	6%

Table 135. Executed Annual Operation Plan 2023

Farm No. 1781 - Nicanor 4																										
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Weed control - manual-cleaning	-	-	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Weed control manual-cleaning	-	-	-	-	-	-	-	-	-	15	-	-	-	9	-	-	-	-	-	26	-	-	-	-	-	50
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	32	-	9	-	-	-	27	-	74	-	-	-	-	-	142
Manual phytosanitary control -leaf-cutter ants	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Supervision	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Fence maintenance	-	-	-	6	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Granular fertilization	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	11
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	72	-	-	-	-	-	-	-	-	-	78
Manual planting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-	-	-	41
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	15
Establishment of fire break rounds	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Tree Unsucker	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Contractor supervision	-	-	-	-	-	4	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Chainsaw Operator	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Processing of workers	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	9	-	-	-	15
Removal of sprouts	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4
Initial Fertilization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4

Formation pruning	-	-	-	1	-	-	-	-	-	-	-	16	-	2	-	-	-	-	-	-	-	-	-	-	-	19
Replanted	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	6
Weed control - slices of establishment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	7
Organic Mulch	-	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Grand Total	**-**	**8.00**	**-**	**31.00**	**-**	**6.00**	**-**	**4.00**	**-**	**41.00**	**-**	**48.00**	**-**	**53.00**	**-**	**135.00**	**-**	**31.00**	**-**	**100.00**	**-**	**9.00**	**-**	**-**	**-**	**466.00**

5.5.5. Farm No. 1339 Margarito Banda

Reforestation summary

Table 136. Categorization of reforested areas.

Farm No. 1339 - Margarito Banda					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2023	
Cocobolo	*Dalbergia retusa*	3x4	833	0.77	0.77
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	6.90	6.90
Jagua y Panamá	*Genipa americana* y *Sterculia apetala*	4x3	833		
Roble	*Tabebuia rosea*	3x4	833	11.96	11.96
Total, reforested				**19.63**	**19.63**
Area to plant					0.23
Protection area					6.73
Stream area					1.00
Infrastructure					0.87
Fire break					0.43
Total Surface Area					**28.89**

Map of the Farm

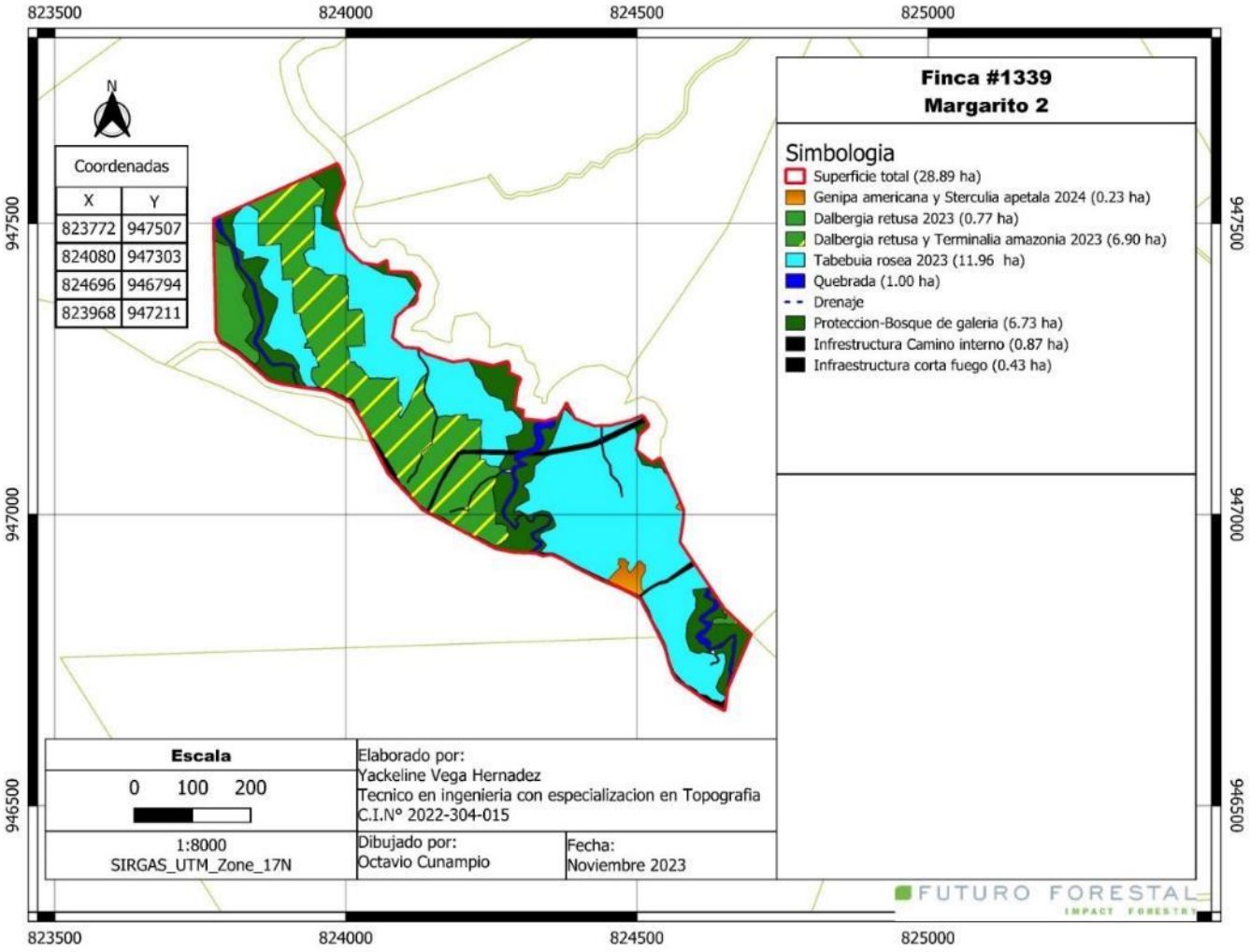


FIGURE 66. MAP OF THE FARM MARGARITO BANDA (NO. 1339).

Preliminary Planting Mortality 2023

The mortality of natives planted on this Farm is relatively low in relation to the number of trees planted in 2023.

Table 137. **PLANTING MORTALITY**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2023	% mortality
Margarito Banda 1	**1339**	Cocobolo	*Dalbergia retusa*	2396	3%
		Amarillo	*Terminalia amazonia*	2039	2%
		Cocobolo	*Dalbergia retusa*	490	1%
		Roble	Tabebuia rosea	9385	3%
Total, average				**14310**	2%

5.5.6. Farm No. 1336 Margarito Banda

Reforestation summary

Table 138. Categorization of reforested areas.

Farm No. 1336 - Margarito Banda					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2023	
Almendro de montaña	*Dipteryx panamensis*	3x4	833	2.28	2.28
Berbá	*Brossimum alicastrum*	3x4	833	0.18	0.18
Caoba	*Swietenia macrophylla*	3x4	833	0.33	0.33
Cedro amargo	*Cedrela odorata*	3x4	833	0.52	0.52
Cocobolo	*Dalbergia retusa*	3x4	833	2.24	2.24
Cocobolo y Amarillo	*Dalbergia retusa* y *Terminalia amazonia*	3x4	833	5.43	5.43
Jagua y Panamá	*Genipa americana* y *Sterculia apetala*	4x3	833		
Roble	*Tabebuia rosea*	3x4	833	9.34	9.34
Total, reforested				**20.32**	**20.32**
Area to plant					3.67
Protection area					7.02
Stream area					3.26
Downslope area					0.97
Infrastructure					0.93
Fire break					0.98
Total Surface Area					**37.15**

Map of the Farm

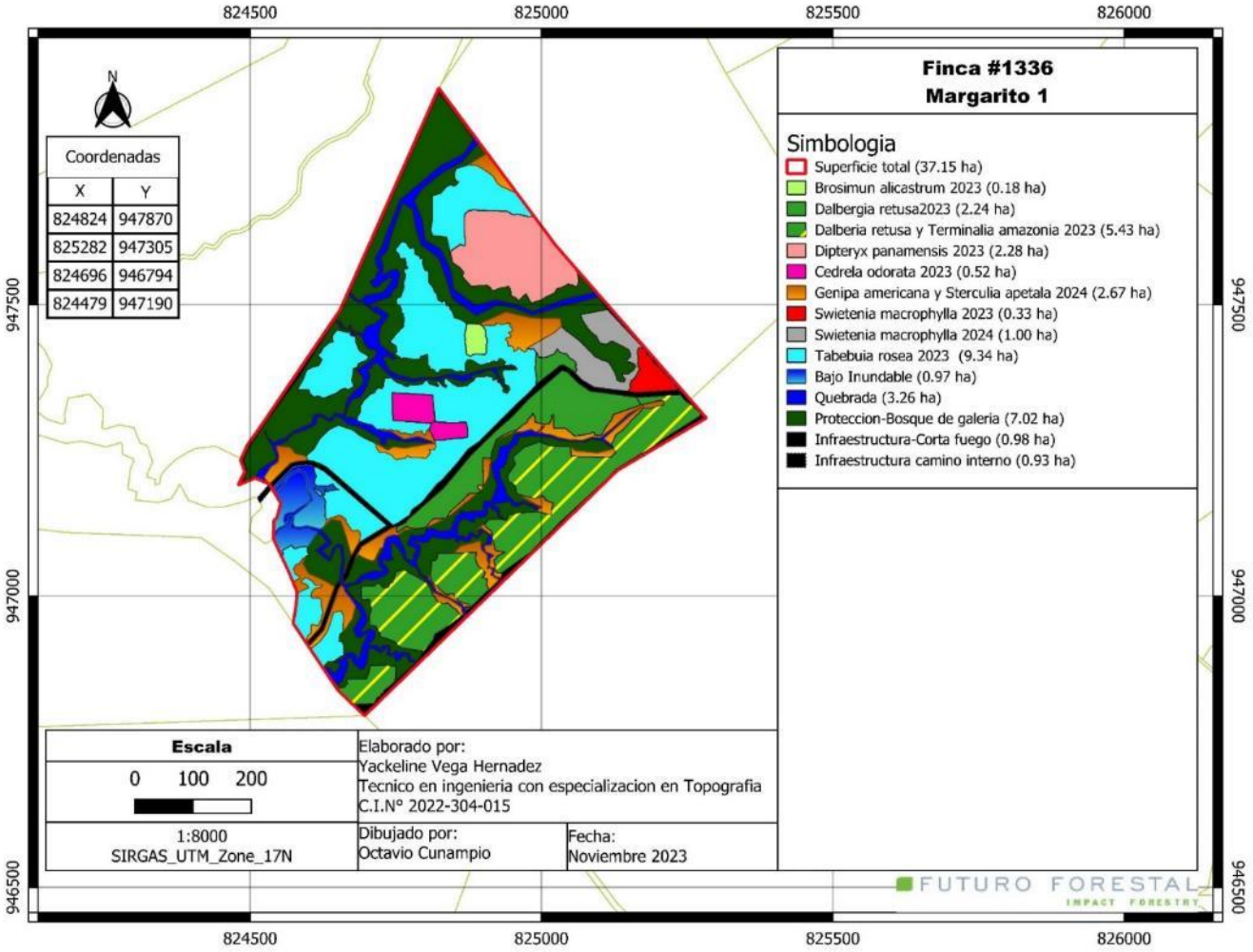


FIGURE 67. MAP OF THE FARM MARGARITO BANDA (NO. 1336).

Preliminary Planting Mortality 2023

The mortality results of the species planted on this farm are low and demonstrate the resistance of the species to the dry season.

Table 139. **PLANTING MORTALITY.**

Farm	N° Farm	Common name	Scientific name	Number of trees planted 2023	% mortality
Margarito Banda 2	**1336**	Cocobolo	*Dalbergia retusa*	2415	2%
		Amarillo	*Terminalia amazonia*	2415	3%
		Cocobolo	*Dalbergia retusa*	1856	4%
		Roble	Tabebuia rosea	7805	5%
		Cedro	*Cedrela odorata*	490	4%
		Caoba	*Swietenia macrophylla*	280	1%
		Berbá	*Brosimum alicastrum*	140	2%
		Almendro de montaña	*Dipteryx panamensis*	1820	1%
Total, average				**17221**	3%

Table 140. Executed Annual Operation Plan2023

FARM MARGARITO BANDA																								
DESCRIPTION	January		February		March		April		May		June		July		August		September		October		November		December		Total	
Row labels	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.	Plan	Exec.
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	-	30	-	121	-	111	211	63	11	-	87	-	-	325	309
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	81	-	44	-	-	-	-	-	-	-	-	-	125
Strip clearing-cutting markings	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Manual planting	-	-	-	-	-	-	-	-	16	-	190	-	187	122	-	35	-	-	-	-	-	-	-	-	393	157
Weed control - manual-cleaning	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plant Distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	26	-	19	-	-	-	-	-	-	-	-	-	45
Strip clearing - marking	-	-	-	-	-	-	-	4	-	15	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Organic Mulch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	144	31	76	-	-	-	220	42
Contractor supervision	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Supervision	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Tree clearing	42	-	-	-	-	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	55
Chainsaw Operator	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Fence construction	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Fence maintenance	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6

Initial Fertilization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	-	19	-	-	-	-	-	-	-	54
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4
Grand Total	**42**	**-**	**-**	**-**	**-**	**89.00**	**-**	**12.00**	**16**	**15.00**	**190**	**14.00**	**218**	**229.00**	**121**	**133.00**	**111**	**245.00**	**207**	**42.00**	**76**	**87.00**	**-**	**-**	**980**	**866.00**

5.6. Filo del Tallo Unit

Description of development

In general, growth has been within the expected range and the plantation has developed well. During the 2023 planting, the planting machine was used and more than 15 hectares were reforested in the sites that allowed the use of the machine. Weed control was also carried out with the agricultural mower to reduce labor costs.

Pest attacks, diseases or fire occurrences

It is important to mention that, to date, no fires have been reported in the plantations, due to the prevention measures implemented each summer (firebreak, personnel training and monitoring). There have been reports of attacks by the Meliaceae borer (*Hypsipyla grandella*) in cedar (*Cedrela odorata*) and mahogany (*Swietenia macrophylla*) lots; manual-chemical controls and periodic monitoring of the plantation are carried out. In addition, the plantation was affected in the foliage of the oak lots, showing symptoms of yellowing and curling of the leaves, giving rise to spots and necrotic spots on the leaves, causing the foliage to fall.

FIGURE 68. ROBLE SEEDLINGS WITH DAMAGES TO THE LEAVES.

No mortality has been observed, only that when the plant is affected it shows a delay in growth and development, for control it was sprayed with pesticide.

A foliar fertilizer with the Triple20 nomenclature has been applied, with positive results. In addition, it was accompanied by an insecticide to counteract insect attack.

5.6.1. Farm No. 3754 Agustín Freddy González

Reforestation summary

Table 141. Categorization of reforested areas.

Farm No. 3754 - Agustín Freddy González					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2023	
Roble	*Tabebuia rosea*	3x4	833	3.95	3.95
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	3.43	3.43
Caoba	*Swietenia macrophylla*	3x4	833	0.75	0.75
Ron Ron	*Astronium graveolens*	3x4	833	1.24	1.24
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	1.25	1.25
Almendro	*Dipteryx panamensis*	3x4	833	1.55	1.55
Amarillo Guayaquil	*Centrolobium yavizanum*	3x4	833	0.68	0.68
Cedro Amargo	*Cedrela Odorata*	3x4	833	1.95	1.95
Total, reforested				**14.80**	**14.80**
Area to plant					0.34
Protection area					2.09
Stream area					0.65
Infrastructure (Road)					0.41
Fire break					0.80
Artificial lake					0.10
Total Surface Area					**19.19**

Map of the Farm

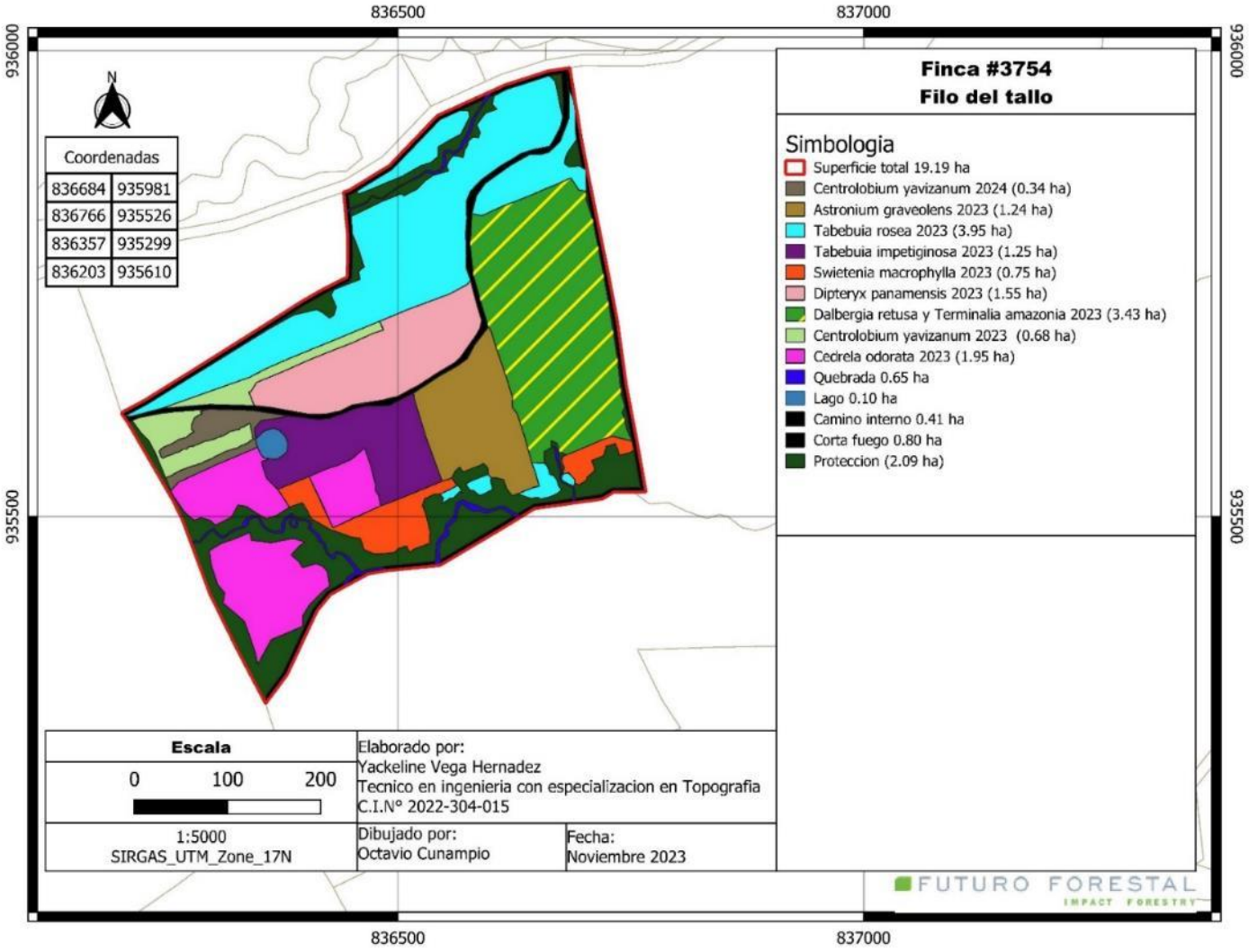


FIGURE 69. MAP OF THE FARM FILO DEL TALLO (NO. 3754).

5.6.2. Farm No. 1427 Agustín Freddy González

Reforestation summary

Table 1. Categorization of reforested areas

Farm No. 1427 - Agustín Freddy González					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2023	
Roble	*Tabebuia rosea*	3x4	833	5.17	5.17
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	4.63	4.63
Caoba	*Swietenia macrophylla*	3x4	833	2.69	2.69
Ron Ron	*Astronium graveolens*	3x4	833	4.41	4.41
Almendro	*Dipteryx panamensis*	3x4	833	5.26	5.26
Cocobolo	*Dalbergia retusa*	3x4	833	6.45	6.45
Coco	*Lecythis ollaria*	6x4	416	0.96	0.96
Amarillo y Almendro	*Terminalia amazonia y Dipteryx panamensis*	3x4	833	0.53	0.53
Total, reforested				**30.10**	**30.10**
Area to plant					3.36
Protection area					11.39
Stream area					1.07
Lago Artificial					0.25
Infrastructure (Road)					0.60
Fire break					0.15
Total Surface Area					**46.92**

Map of the Farm

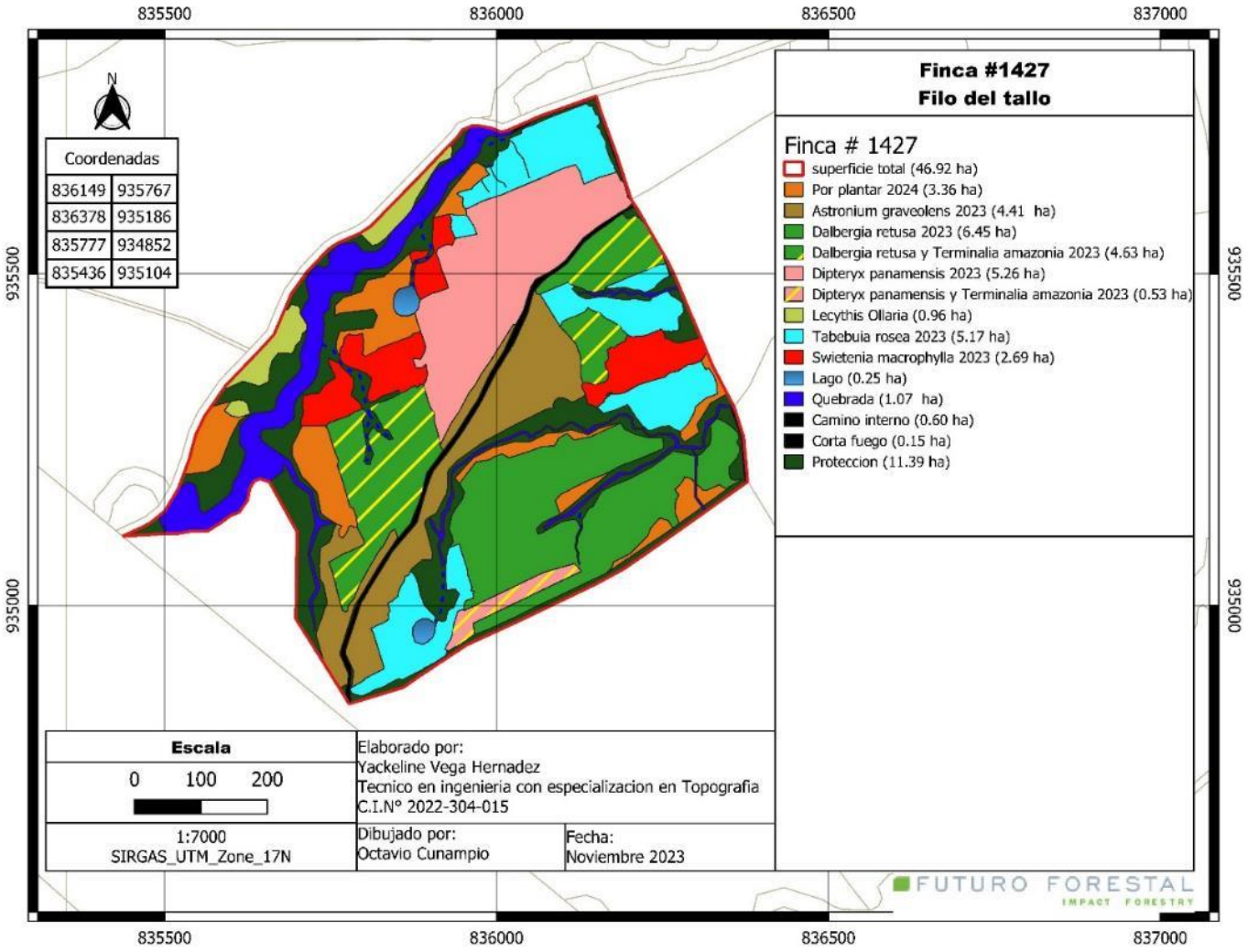


FIGURE 70. MAP OF THE FARM FILO DEL TALLO (NO. 1427).

5.6.3. Farm No. 1668 Freddy Agustín Gonzalez and Hermanos

Reforestation summary

Table 2. Categorization of reforested areas

Farm No. 1668 - Freddy Agustín González y Hermanos					
Planted species		Initial dist. (m)	Tree/ha	Year of planting	Reforested surface/ species (ha)
Common name	Scientific name			2023	
Roble	*Tabebuia rosea*	3x4	833	9.27	9.27
Cocobolo	*Dalbergia retusa*	3x4	833	3.05	3.05
Cedro Amargo	*Cedrela Odorata*	3x4	833	5.03	5.03
Coco	*Lecythis ampla*	6x4	416	0.34	0.34
Almendro	*Dipteryx panamensis*	3x4	833	0.08	0.08
Níspero	*Manilkara zapota*	3x4	833	0.25	0.25
Panamá	*Sterculia apetala*	6x4	416	0.63	0.63
Ron Ron	*Astronium graveolens*	3x4	833	0.63	0.63
Guayacán Morado	*Tabebuia impetiginosa*	3x4	833	1.17	1.17
Berbá	*Brossimum alicastrum*	3x4	833	1.44	1.44
Guachapali	*Albizia guachapele*	3x4	833	0.32	0.32
Total, reforested				**22.21**	**22.21**
Area to plant					7.20
Protection area					8.23
Stream area					1.50
Artificial lake					0.60
Internal road					0.48
Total Surface Area					**40.22**

Map of the Farm

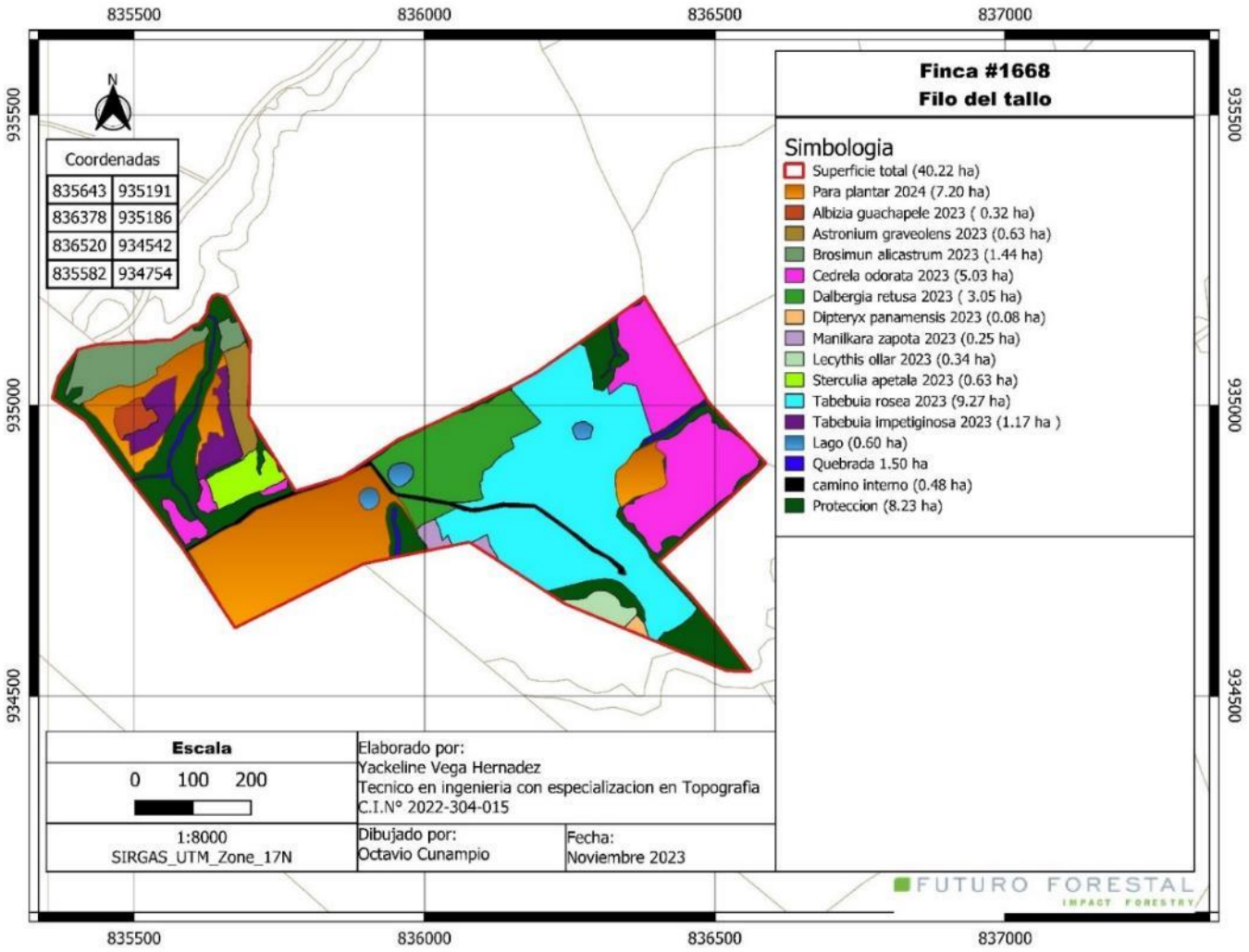


FIGURE 71. MAP OF THE FARM FILO DEL TALLO (NO. 1668).

5.6.4. Farm No. 1069 Hermenegildo Castro

Reforestation summary

Table 3. Categorization of reforested areas.

Farm No. 1069 - Hermenegildo Castro					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2023	
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	14.92	14.92
Cocobolo	*Dalbergia retusa*	3x4	833	7.03	7.03
Roble	*Tabebuia rosea*	3x4	833	10.42	10.42
Cedro Amargo	*Cedrela Odorata*	3x4	833	8.69	8.69
Amarillo Guayaquil	*Centrolobium yavizanum*	3x4	833	0.47	0.47
Ron Ron	*Astronium graveolens*	3x4	833	0.86	0.86
Amarillo	*Terminalia amazonia*	3x4	833	5.16	5.16
Berbá	*Brossimum alicastrum*	3x4	833	0.60	0.60
Níspero	*Manilkara zapota*	3x4	833	0.13	0.13
Zapatero	*Hieronyma alchorneoides*	3x4	833	2.50	2.50
Guayacán morado	*Tabebuia impetiginosa*	3x4	833	1.56	1.56
Caoba	*Swietenia macrophylla*	3x4	833	0.69	0.69
Total, reforested				**53.03**	**53.03**
Area to plant					6.81
Protection area					34.25
Stream area					4.00
Infrastructure					1.29
Artificial lake					0.16
Total Surface Area					**99.54**

Map of the Farm

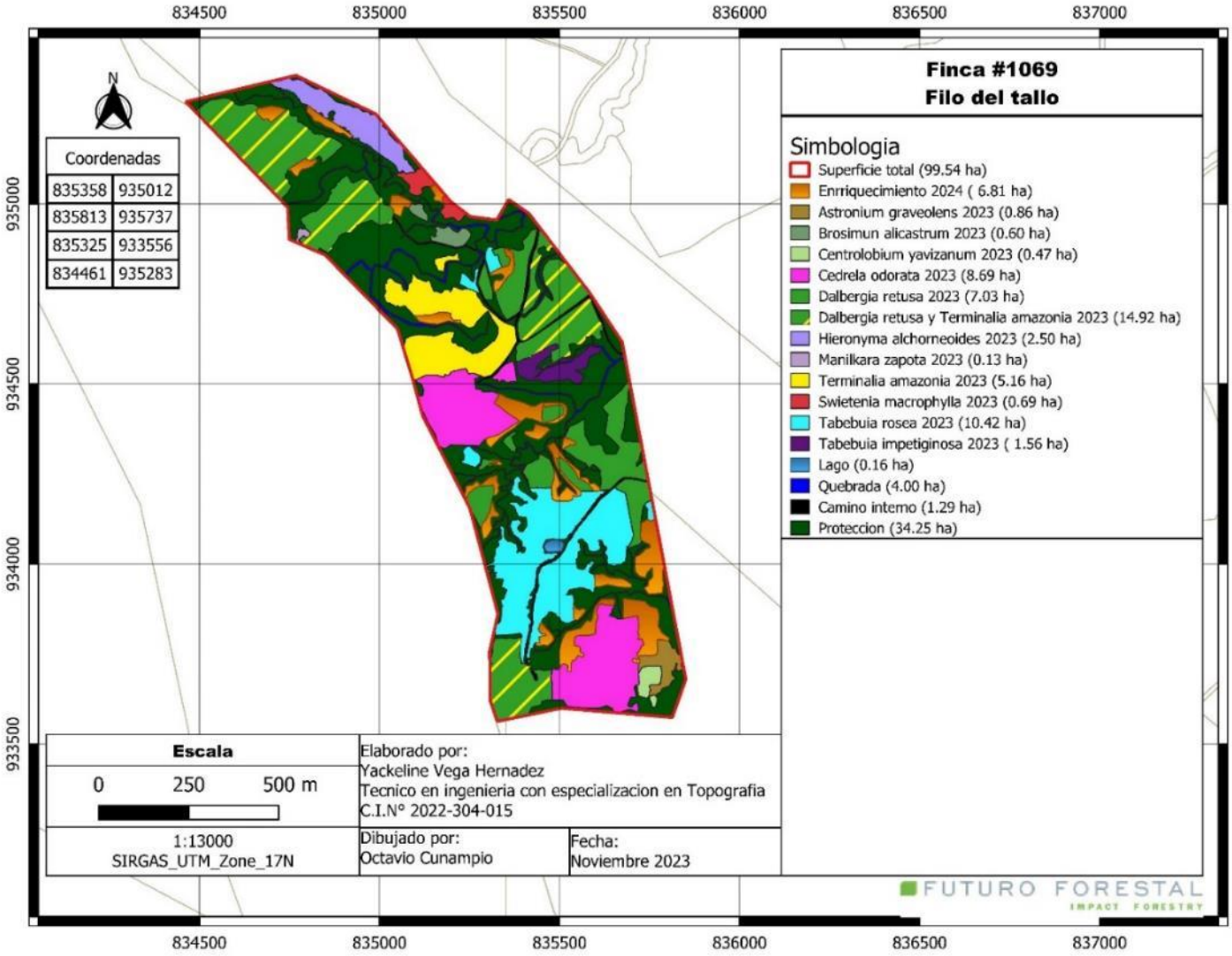


FIGURE 72. MAP OF THE FARM FILO DEL TALLO (NO. 1069).

5.6.5. Farm No. 2001 Hermenegildo Castro

Reforestation summary

Table 4. Categorization of reforested areas.

Farm No. 2001 - Hermenegildo Castro					
Planted species		**Initial dist. (m)**	**Tree/ha**	**Year of planting**	**Reforested surface/ species (ha)**
Common name	**Scientific name**			2023	
Cocobolo y Amarillo	*Dalbergia retusa y Terminalia amazonia*	3x4	833	4.90	4.90
Cocobolo	*Dalbergia retusa*	3x4	833	12.58	12.58
Cocobolo y Almendro	*Dipteryx panamensis y Dalbergia retusa*	3x4	833	4.90	4.90
Roble	*Tabebuia rosea*	3x4	833	2.78	2.78
Caoba	*Swietenia macrophylla*	3x4	833	0.67	0.67
Almendro	*Dipteryx panamensis*	3x4	833	0.82	0.82
Coco	*Lecythis ollaria*	3x4	833	0.15	0.15
Níspero	*Manilkara zapota*	3x4	833	2.42	2.42
Total, reforested				**29.22**	**29.22**
Are ato plant (Enrichment and Mixed)					23.41
Protection area					7.23
Forest protection					6.94
Stream area					2.74
Lago					0.30
Internal road					1.15
Total Surface Area					**70.99**

Map of the Farm

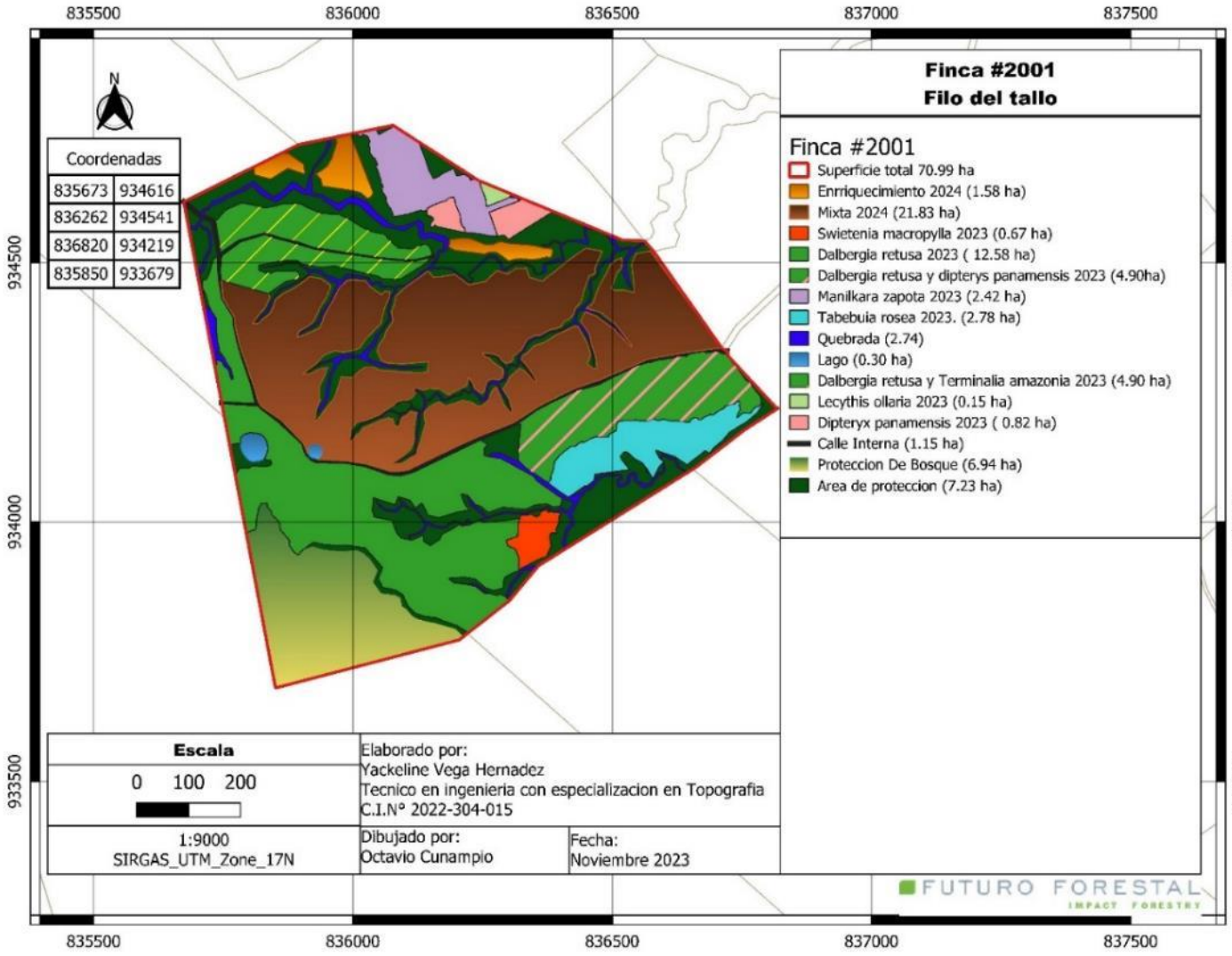


FIGURE 73. MAP OF THE FARM FILO DEL TALLO (NO. 2001).

Table 5. Executed Annual Operation Plan 2023

FARMS FILO DEL TALLO																								
DESCRIPTION	**January**		**February**		**March**		**April**		**May**		**June**		**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
Row labels	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**	**Plan**	**Exec.**
Weed control manual - slices of maintenence	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	132	-	-	-	-	1	-	1	172
Organic Mulch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	243	-	-	145	-	1	-	146	243
Weed control manual-cleaning	-	-	-	-	-	-	-	-	-	-	-	-	560	-	-	-	-	-	560	112	-	146	-	-	1,120	258
Weed control-Strip Cleaning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	-	234	-	-	-	474
Weed control-Chemical in strips	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225	-	-	1	-	-	225	-	-	-	450	1
Supervision	-	-	-	-	-	-	-	-	-	-	-	15	-	60	-	80	-	34	-	36	-	-	-	-	-	225
Weed control - manual-cleaning	-	-	3	-	660	-	228	-	-	17	227	153	-	381	-	-	-	3	-	-	-	-	-	-	1,118	554
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	2	-	-	-	-	-	-	-	6
Manual planting	-	-	-	-	-	-	-	-	-	-	606	-	1,042	-	-	188	-	157	-	-	-	-	-	-	1,648	345
Marking Staking	-	-	-	-	-	3	-	-	-	-	-	73	-	184	-	311	-	106	-	-	-	-	-	-	-	677
Contractor Supervision	-	-	-	-	-	5	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Strip clearing - marking	-	-	-	-	-	-	-	-	-	34	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	41
Strip clearing-cutting markers	-	-	-	-	-	-	-	-	-	20	-	6	-	1	-	-	-	-	-	-	-	-	-	-	-	27

Fence construction	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Marking - stakes manufacturing	-	-	-	-	-	-	-	-	-	-	-	58	-	123	-	18	-	28	-	-	-	-	-	-	-	227
Weed control – slices of establishment	-	-	-	-	35	-	-	-	-	-	470	83	260	353	-	252	-	107	-	419	-	-	-	-	765	1,214
Processing of workers	-	-	-	-	-	-	-	-	-	-	-	-	-	51	-	-	-	-	-	-	-	-	-	-	-	51
Tree clearing	-	-	-	-	138	-	-	-	-	-	37	-	-	88	-	39	-	10	-	-	-	-	-	-	175	137
Marking - Collection of stakes	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	13	-	5	-	-	-	-	-	-	-	21
Plant distribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	-	5	-	-	-	-	-	-	-	31
Making planting-holes - manual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	183	-	76	-	-	-	-	-	-	-	259
Square Lots for Marking.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	133	-	49	-	-	-	-	-	-	-	182
Mechanical Planting Assistant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	2	-	-	-	-	-	-	-	6
GPS survey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	5
Foliar fertilization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-	4	-	-	-	-	-	-	-	40
Phytosanitary control - leaf-cutter ants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	1	-	-	-	-	-	7
Initial Fertilization	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	23
Strip clearing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	6
Plugging holes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Chainsaw Operator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1

Mechanical Planting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Training	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	3
Chainsaw Operator Assitant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Weed control - mechanical - Güira	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-	34	-	-	-	70
Contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Supervisions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	38	-	-	-	-	-	46
Grand Total	**-**	**-**	**3**	**-**	**833**	**8**	**228**	**17**	**-**	**80**	**1,340**	**395**	**1,862**	**1,244**	**225**	**1,367**	**-**	**983**	**560**	**882**	**370**	**414**	**2**	**-**	**5,423**	**5,390**

5.6.6. Preliminary planting mortality of Filo del Tallo 2023

The following is a general detail of the percentage of preliminary mortality recorded in the unit Filo delTallo of FAD 2023, according to the sampling carried out by the monitoring personnel, the sample was done randomly.

Table 6. Preliminary planting mortality.

Especie	Scientific name	Quantity Alive	Quantity Dead	Total Quantity	% Mortality
Almendro	*Dipteryx panamensis*	292	16	308	5%
Almendro y cocobolo	*Dipteryx panamensis - Dalbergia retusa*	194	2	196	1%
Amarillo	*Terminalia amazonia*	361	3	364	1%
Amarillo Guayaquil	*Centrolobium yavizanum*	82	2	84	2%
Berbá	*Brossimum alicastrum*	306	2	308	1%
Caoba	*Swietenia macrophylla*	108	4	112	4%
Cedro Amargo	*Cedrela odorata*	924	28	952	3%
Cocobolo	*Dalbergia retusa*	1366	6	1372	0%
Cocobolo y Almendro	*Dalbergia retusa - Dipteryx panamensis*	137	3	140	2%
Cocobolo y Amarillo	*Dalbergia retusa - Terminalia amazonia*	1236	24	1260	2%
Cocobolo y roble	*Dalbergia retusa*	28	0	28	0%
Guachapali	*Albizia guachapele*	56	0	56	0%
Guayacán morado	*Tabebuia rosea*	278	2	280	1%
Níspero	*Manilkara zapota*	56	0	56	0%
Panamá	Sterculia apetala	50	6	56	11%
Roble	*Tabebuia rosea*	1105	17	1122	2%
Ron Ron	*Astronium graveolens*	558	2	560	0%
Zapatero	*Hieronyma alchorneoides*	76	8	84	11%

In this first mortality sample, the result is 2.55% in average mortality, in spite of the difficulties caused by the El Niño phenomenon, the percentage is low.

6. Roads and Infrastructure

Table 7. Table of internal roads made up in the year 2023

Roads made in the year 2023						
UNIT	FARM	Farm No	INTERNAL		EXTERNAL	
			Crossing	Road	Road	Crossing
Claritas	Tello#1	**3905**		0.3		
	Tello#3	**3123**	1	1		
	La Esperanza		2.5	1.7		
	Raúl Espinoza	**217884**	2	1.5		
	Contenedor		1	1.5		
	Joaquín Hernández	**30387827**			2	1
	Darío Castro	**1866**				
	Gindi Trujillo	**886**				
	Total		**6.5**	**6**	**2**	**1**
Filo del Tallo	Agustín Freddy González	**3754**		0.761	7	
	Agustín Freddy González	**1427**		0.904		
	Freddy Agustín González y hermanos	**1668**		0.865		
	Hermenegildo Castro	**2001**		1.886		1
	Hermenegildo Castro	**1069**		2.584		
	Total			**7**	**7**	**1**
Lastenia	Lastenia #1				2	8
	Lastenia #2	**6159**		1.5		
	Lastenia #3	**342926**				
	José García	**444101**		1.5		
	Lastenia #4	**30163457**	1	0.3		2
	Lastenia #5	**2719**	1	1.5		
	Carlos Solís	**30150308**		0.5		
	Marcelino Guerra			0.5		
	Nicanor#1	**1182**	1			
	Nicanor#2	**5553**	1.8			
	Nicanor#3	**1519**	2	1		
	Nicanor#4	**1781**	2			
	Margarito Banda			2		
	José García	**444101**		1.5		
	Avendaño		4	2.5		
	Total		**12.8**	**12.8**	**2**	**10**

6.1. Claritas Operating Unit

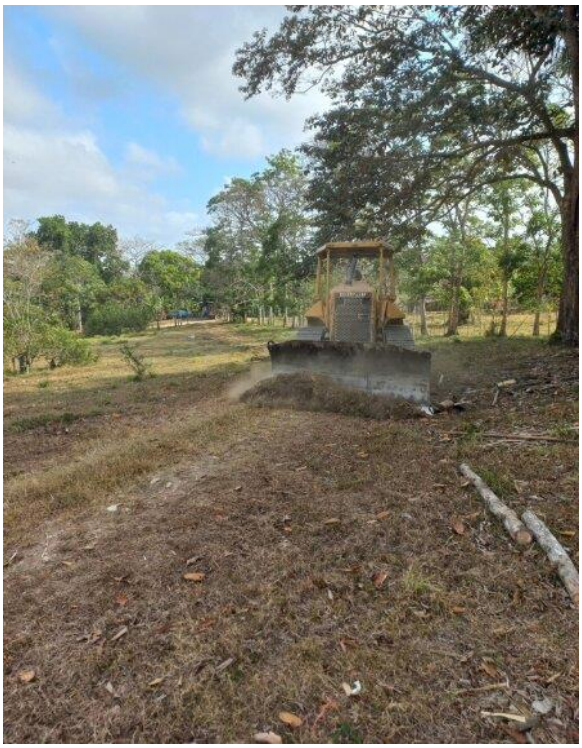
In the year 2023, 6 kilometers of internal roads were built in the Claritas operating unit, as well as 2 kilometers of external roads to facilitate access to distant farms. The Wala community also benefited from the construction of these roads, with which a close relationship has also been created. The company also contributed 167 trips of rough gravel to rehabilitate the public roads leading to the entire operation.

Photo of road works in Claritas

FIGURES 74-76. INTERNAL ROADS OF CLARITAS.

6.2. Filo del Tallo Operational Unit

Photo of road works at Filo del Tallo



FIGURES 77-79. WORK ON INTERNAL ROADS FILO DEL TALLO.

6.3. Lastenia Operating Unit

Photo of works in roads of Lastenia.

FIGURES 80-81. INTERNAL ROADS FARM 6159 LASTENIA 2.

FIGURES 82-83. CROSSINGS AND EXTERNAL ROAD REHABILITATION TOWARDS THE FARMS LASTENIA.

FIGURES 84-85. WORK IN LASTENIA ROADS.

6.4. Farms in Colón

Photo of work in Roads of Colón (Gatún 2).

FIGURES 86-87. PHOTOS OF THE ROADS BUILT AT THE GATUN 2 FARM.

FIGURE 88-89. OF THE ROADS BUILT ON THE GATUN 2 FARM.

7. Difficulties

7.1. General

- The greatest difficulty has been during planting due to the "El Niño" phenomenon, since this meteorological phenomenon considerably reduced rainfall, which greatly delayed planting. Planting had to be interspersed between the rains.
- In the months of October and November there was a total road closure throughout the country for a period of more than 4 consecutive weeks, which has made it very difficult in terms of transportation, logistics, transportation of personnel, material and supplies, guaranteeing meals for the camp and workers and to attend to the Farm and its maintenance. It was necessary to adapt strategies of moving personnel to camps and Farms where they worked, to stay closer. In addition, an interspersed transportation at strategic points, where personnel could walk past the closures and have transportation on the other side.
- More frequent attacks by *Hypsipyla grandella* have been reported on cedar (*Cedro odorata*) plantations and in some cases on mahogany (*Swietenia macrophylla*). Several trials have been conducted with various chemical and organic products for control. However, for the moment, manual control by eliminating the larvae inside the tree has been the most effective, but it significantly increases the budget for the maintenance of these plots. Other alternatives will continue to be analyzed.
- Budget cuts in the fourth quarter of the year have affected certain maintenance, weed control, and cleaning activities, mainly because personnel has been reduced. These delays in activities will have an impact in 2024.
- The main highway between Panama City and Darien, the Panamerican Highway, is in a precarious state with many potholes, making transportation difficult and increasing the maintenance required for the vehicle fleet.

7.2. Claritas

- The biggest difficulty we faced during the planting was the "El Niño" phenomenon, since this meteorological phenomenon considerably reduced rainfall, which greatly delayed the planting.

7.3. Filo del Tallo

- The El Niño phenomenon caused a lack of moisture in the soil due to the low rainfall, which led to the planting being suspended at some point.
- The soil is stony in some areas, making it difficult to carry out manual activities.

7.4. Lastenia y Nicanor

- Prolonged drought. Caused by the El Niño phenomenon, which changed the rainfall patterns during the months in which it was intended to start with the 2023 planting,

thus delaying this activity. Once the planting and replanting was completed, some species were affected by the drought and lack of moisture in the soil of some farms.

- Transportation for the logistics and supervision of the Farms it is important to mention the issue of transportation, since, due to the constant mechanical failures, it was one of the limitations at the time of the supervision and monitoring of the different activities carried out in the field at the different specific Farms Lastenia #1,2,3,4,5; José García, Marcelino Guerra.
- Transportation for Farms' logistics and Supervision was also affected by the deterioration of some public roads outside the Farms, due to heavy rains that affected culverts and fords. In addition, the passage of heavy equipment (agricultural machinery) on public roads.
- The strikes and shortcuts of streets that crossed the country of which Darien is not the exception, which has caused in recent weeks closures of streets and main roads due to constant strikes. In such a way, that many collaborators and personnel of the company have been affected at the time of arriving to the work area, so it has become a great challenge to mobilize to the different Farms.

7.5. Colón

- During the 2023 period, the difficulties we encountered in the area were accessibility to the farms in the rainy season, as employees often had to walk to buy their supplies.
- During the planting period, we encountered difficulties in moving the seedlings to the planting site, due to the fact that vehicles could not help us with the transfer because of the terrain conditions.
- Also, the terrain and the type of weeds encountered created some difficulty in carrying out the work.

8. Conclusions – Recommendations

- Continue with the activities of maintenance, follow-up and supervision of the plantations established in the Farms, guaranteeing their development and growth.
- Guarantee the labor force needed so that the work can be done more quickly and the quality of the plantation is not impaired.
- Continue with the infrastructure improvements and adjustments in the camps, to provide a better quality of life for the employees.
- In Colon, build a small house for the workers in Gatun 2, since they have been in a tent temporarily, to provide a better quality of life for the collaborators. It is important that the personnel be close to the farm to ensure surveillance.
- Rehabilitate in some parts the roads and fords (internal-external), to carry out a better control and supervision of work in the field.
- To have means of transportation (vehicle, motorcycle), for the mobilization and supervision of the project, specifically of the activities carried out in the different Farms of Lastenia.
- Conduct continuous training on specific silvicultural practices (pruning, weeding, apex selection) involving all field employees.