

‘FORTEKO’ AFFORESTATION ON DEGRADED GRASSLANDS UNDER EXTENSIVE GRAZING PROJECT MONITORING REPORT



Project title	‘Forteko’ afforestation on degraded grasslands under extensive grazing project
Project ID	962
Crediting period	31 July 2007 – 30 July 2107
Monitoring period	26 September 2021 – 26 August 2024
(CCB) GHG accounting period	26 March 2013 – 30 July 2107
Original date of issue	To be completed following the completion of the audit
Most recent date of issue	09-September-2025 is the date the monitoring report was most recently submitted
Version	1.1
VCS Standard version	4.7
CCB Standards version	3.1
Project location	Uruguay, Cerro Largo and Treinta y Tres departments
Project proponent(s)	Agroempresa Forestal S.A. Dan Guanpurá; dguapura@af.com.uy ; +598 2916 2020 EF Asset Management Administradora de Fondos de Inversión S.A Leonardo Isoardi; efam@ferrere.com ; +598 29001000
Validation/verification body	Colombian Institute for Technical Standards and Certification – ICONTEC, Jimena Sampe, +57 601 580 6419, jsamper@icontec.org

History of CCB Status	CCB registry: 25 July 2024
Gold Level criteria	N/A
Prepared by	ProSustentia SAS; Josefina Uijt den Bogaard; jbogaard@prosustentia.com ; (+549)1136338125

DRAFT

CONTENTS

1	SUMMARY OF PROJECT BENEFITS	4
1.1	Unique Project Benefits	4
1.2	Standardized Benefit Metrics	6
2	PROJECT DETAILS	9
2.1	Summary Description of the Implementation Status of the Project	9
2.2	Project Implementation Status	22
2.3	Stakeholder Engagement & Safeguards	60
2.4	Management Capacity	76
2.5	Legal Status and Property Rights	83
3	CLIMATE	88
3.1	Monitoring GHG Emission Reductions and Removals	88
3.2	Quantification of GHG Emission Reductions and Removals	114
3.3	Optional Criterion: Climate Change Adaptation Benefits	129
4	COMMUNITY	129
4.1	Net Positive Community Impacts	129
4.2	Other Stakeholder Impacts	135
4.3	Community Impact Monitoring	137
4.4	Optional Criterion: Exceptional Community Benefits	139
5	BIODIVERSITY	140
5.1	Net Positive Biodiversity Impacts	140
5.2	Offsite Biodiversity Impacts	157
5.3	Biodiversity Impact Monitoring	159
5.4	Optional Criterion: Exceptional Biodiversity Benefits	175
	APPENDIX 1: NEW PROJECT AREAS AND STAKEHOLDERS	176
	APPENDIX 2: PROJECT RISKS TABLE	177
	APPENDIX 3: COMMERCIALLY SENSITIVE INFORMATION	189
	APPENDIX 4: COMMUNITY MONITORING RESULTS	190
	APPENDIX 5: BIODIVERSITY MONITORING RESULTS	192
	APPENDIX 6: SDG EVIDENCE	199

1 SUMMARY OF PROJECT BENEFITS

1.1 Unique Project Benefits

Outcome or Impact	Achievements during the Monitoring Period	Section Reference	Achievements during the Project Lifetime
1) Provide experience of forest planting and forest management in degraded grasslands in connection to HCV areas	The project aims to improve labor conditions and increase workers' technical capacity in line with HCV areas conservation. At present, 319 workers have been trained on sustainable forest operational activities	2.1.12 and 4.1.1	The project aims to improve labor conditions and increase workers' technical capacity in line with sustainable forest management and HCV areas. At present, over 1,224 workers have been trained or updated on sustainable forest operational activities.
2) Improve the ecological environment of the planted areas and the native forest surrounding the forest plantations	Biodiversity monitoring is a key element in the BDU project. Results have shown that project sites are being monitored and categorized with biodiversity value, according to standardized methodologies.	5.1.1 and 5.1.4	Biodiversity monitoring is a key element in the BDU project. Results have shown that project sites are being monitored and categorized with biodiversity value, according to standardized methodologies.
3) Create net positive benefits to the community and stakeholders of the project based on a comparison with the Baseline scenario.	<p>Communities benefit with the project's activity from multiple points of view.</p> <p>Local businesses have increased direct and indirectly because of project activity (hotel, restaurants, garages, etc.)</p> <p>Compared with the baseline scenario, there are more than 1,644 medium to highly qualified job positions</p>	4.1.1 and 4.3.1	<p>Communities benefit with the project activity from multiple points of view.</p> <p>Local business is expected to have increased direct and indirectly because of project activity (hotel, restaurants, garages, etc.). Compared with</p>

	generated. Landscape beauty has been improved with the establishment of forest.		baseline scenario, there are estimated more than 2,879 people benefited (directly and indirectly related to project activity). And survey results show that 71 % consider the project has medium to high impact on new job opportunities, while the rating for the impact over well-being of communities showed above 62% medium to high impact.
4) Create an economic activity with exceptional community communication and participation throughout the Project lifetime.	Community participation and communications are a key point for the project so constant interaction takes place seeking to maintain a good valuation of the project within the impact community. All claims have been responded in time, and the valuation for community communication has been above 70% good/very good during its monitoring period.	4.3.1	Community participation and communications are a key point for the project, so constant interaction takes place seeking to maintain a good valuation of the project within the impacted community. No claims or complaints have been received and not resolved throughout the project lifetime, and the project proponent's rating has 0 % <i>Bad</i> valorization.

1.2 Standardized Benefit Metrics

Category	Metric	Achievements during Monitoring Period	Section Reference	Achievements during the Project Lifetime
GHG emission reductions & removals	Net estimated emission removals in the project area, measured against the without-project scenario	4,810,529tn CO ₂ -e	3.2	9,238,511 tCO ₂ e
	Net estimated emission reductions in the project area, measured against the without-project scenario	Not applicable	-	Not applicable
Forest ¹ cover	For REDD ² projects: Number of hectares of reduced forest loss in the project area measured against the without-project scenario	Not applicable	-	Not applicable
	For ARR ³ projects: Number of hectares of forest cover increased in the project area measured against the without-project scenario	13,920.8ha	2.1.8	13,966.5ha
Improved land management	Number of hectares of existing production forest land in which IFM ⁴ practices have occurred as a result of the project's activities, measured against the without-project scenario	Not applicable	-	Not applicable
	Number of hectares of non-forest land in which improved land management has occurred as a result of the project's activities, measured against the without-project scenario	Not applicable	-	Not applicable

¹ Land with woody vegetation that meets an internationally accepted definition (e.g., UNFCCC, FAO, or IPCC) of what constitutes a forest, which includes threshold parameters, such as minimum forest area, tree height and level of crown cover, and may include mature, secondary, degraded and wetland forests (*VCS Program Definitions*)

² Reduced emissions from deforestation and forest degradation (REDD) – Activities that reduce GHG emissions by slowing or stopping conversion of forests to non-forest land and/or reduce the degradation of forest land where forest biomass is lost (*VCS Program Definitions*)

³ Afforestation, reforestation and revegetation (ARR) – Activities that increase carbon stocks in woody biomass (and in some cases soils) by establishing, increasing and/or restoring vegetative cover through the planting, sowing and/or human-assisted natural regeneration of woody vegetation (*VCS Program Definitions*)

⁴ Improved forest management (IFM) – Activities that change forest management practices and increase carbon stock on forest lands managed for wood products such as saw timber, pulpwood, and fuelwood (*VCS Program Definitions*)

Training	Total number of community members who have improved skills and/or knowledge resulting from training provided as part of project activities	1,289	4.1.1	1,955
	Number of female community members who have improved skills and/or knowledge resulting from training provided as part of project activities of project activities	670	4.1.1	1,017
Employment	Total number of people employed in of project activities, ⁵ expressed as number of full-time employees ⁶	747	4.3.1	1,413
	Number of women employed in project activities, expressed as number of full-time employees	30	4.3.1	57
Livelihoods	Total number of people with improved livelihoods ⁷ or income generated as a result of project activities	2,466	4.1.1	3,502
	Number of women with improved livelihoods or income generated as a result of project activities	99	4.1.1	140
Health	Total number of people for whom health services were improved as a result of project activities, measured against the without-project scenario	747	4.1.1	1,413
	Number of women for whom health services were improved as a result of project activities, measured against the without-project scenario	30	4.1.1	57
Education	Total number of people for whom access to, or quality of, education was improved	358	4.1.1	812

⁵ Employed in project activities means people directly working on project activities in return for compensation (financial or otherwise), including employees, contracted workers, sub-contracted workers, and community members that are paid to carry out project-related work.

⁶ Full time equivalency is calculated as the total number of hours worked (by full-time, part-time, temporary and/or seasonal staff) divided by the average number of hours worked in full-time jobs within the country, region, or economic territory (adapted from UN System of National Accounts (1993) paragraphs 17.14[15.102]; [17.28])

⁷ Livelihoods are the capabilities, assets (including material and social resources) and activities required for a means of living (Krantz, Lasse, 2001. *The Sustainable Livelihood Approach to Poverty Reduction*. SIDA). Livelihood benefits may include benefits reported in the Employment metrics of this table.

	as a result of project activities, measured against the without-project scenario			
	Number of women and girls for whom access to, or quality of, education was improved as a result of project activities, measured against the without-project scenario	175	4.1.1	397
Water	Total number of people who experienced increased water quality and/or improved access to drinking water as a result of project activities, measured against the without-project scenario	N/A. However, forestry practices applied in BDU II are the latest available technology and practices that prevents the laminar erosion or diminishes the leakage of fertilizers, preventing the translocation of sediments or nutrients into the river, which are used as drinkable water.	-	N/A. However, forestry practices applied in BDU II are the latest available technology and practices that prevents the laminar erosion or diminishes the leakage of fertilizers, preventing the translocation of sediments or nutrients into the river, which are used as drinkable water.
	Number of women who experienced increased water quality and/or improved access to drinking water as a result of project activities, measured against the without-project scenario	Not applicable	-	Not applicable
Well-being	Total number of community members whose well-being ⁸ was improved as a result of project activities	12,558	4.1.3	12,558
	Number of women whose well-being was improved as a result of project activities	6,530	4.1.3	6,530

⁸ Well-being is people's experience of the quality of their lives. Well-being benefits may include benefits reported in other metrics of this table (e.g. Training, Employment, Health, Education, Water, etc.), but could also include other benefits such as empowerment of community groups, strengthened legal rights to resources, conservation of access to areas of cultural significance, etc.

Biodiversity conservation	Change in the number of hectares significantly better managed by the project for biodiversity conservation, ⁹ measured against the without-project scenario	16,181.5	5.1.1	16,181.5
	Number of globally Critically Endangered or Endangered species ¹⁰ benefiting from reduced threats as a result of project activities, ¹¹ measured against the without-project scenario	No endangered species from IUCN list found, but 3 birds from the country's SNAP list.	5.1.1/5.3.1	No endangered species from IUCN list found, but 3 birds from the country's SNAP list.

2 PROJECT DETAILS

2.1 Summary Description of the Implementation Status of the Project

2.1.1 Summary Description of the Project (VCS, 2.1, 3.6; CCB, G1.2)

The project comprises a productive area totaling 14,365.43 ha of land previously under extensive grazing by beef cattle on which afforestation for obtaining high-value, long-lived timber products and for sequestering large amounts of carbon dioxide from the atmosphere was established.

Forests were initially based on long term rotation Loblolly Pine (*Pinus taeda*) and to a lesser extent Hybrid Pine (*caribea x elliotti*). In 2017, and after the properties were sold to BDU III Trust Fund, a change in the species was implemented on up to 21% of total planted area, only on some of the properties. This replacement took place from 2017 to 2024 with the plantation of *Eucalyptus grandis* (69%) plantations and *dunnii* (31%). Rotation periods for these new species is 18-20 and 10 years respectively and forest plantations will be replanted after clear-cut harvest. Practices are still certified with FSC standard.

The baseline study determined that continuation of extensive grazing is the most likely use of the land. Additionality is demonstrated through a barriers analysis and common practice analysis which

⁹ Biodiversity conservation in this context means areas where specific management measures are being implemented as a part of project activities with an objective of enhancing biodiversity conservation.

¹⁰ Per IUCN's Red List of Threatened Species

¹¹ In the absence of direct population or occupancy measures, measurement of reduced threats may be used as evidence of benefit

showed that afforestation in the area of the proposed project activity is not likely to occur without carbon financing and only previous land use activity (cattle breeding) presents no barriers.

Regarding leakage, it is estimated as zero, given the fact that Forteko project combines forestry and beef cattle breeding in its premises, working together with previous owners or neighbors through contracts. Non-permanence risk factors are analyzed in the corresponding report to be handed together with this monitor report, and where the project has demonstrated to be in good health and implementing mitigation measures in order to limit external, internal or natural risks.

Planted forests are removing carbon dioxide from the atmosphere and storing it in different carbon pools (living above-ground and below-ground biomass, soil, litter and dead wood). In this third monitoring event the carbon stock in different pools is measured in all 9,238,511ha planted areas, resulting in 4,810,529tn CO₂-e for this verification period. At the same time the project is monitoring and identifying high conservation areas and implementing sustainable management practices.

The project has contributed to the sustainable development of Uruguay, and specifically the project zone by:

- Increasing labor demand from the local population
- Adding value to wood products and diversifying the regional production leading to higher economic revenues for the region
- Promoting an integrated management scheme with the ecosystem, achieving biodiversity conservation
- Creating and developing a new mechanism to finance projects in the forestry sector

2.1.2 Audit History (VCS, 4.1)

Audit Type	Period	Program	VVB Name	Number of years
Validation	-	VCS	SCS Global Services	-
Verification	31 July 2007 – 25 March 2013	VCS	SCS Global Services	6 years
Validation	-	CCB	AENOR	-

Verification	26 March 2013 – 25 September 2021	CCB-VCS	AENOR	8.5 years
Verification	26 September 2021 – 26 August 2024	CCB-VCS	ICONTEC	2.9 years

2.1.3 Sectoral Scope and Project Type (VCS, 3.2)

Sectoral Scope	14: Agriculture, forestry, and other land use
AFOLU Project Category	Afforestation, Reforestation and Revegetation (ARR)
Project Activity Type	Establishment of forests on land that had previously been under grassland for more than 50 years.

2.1.4 Project Proponent (VCS, 3.7; CCB, G1.1)

Organization name	Agroempresa Forestal S.A. (AF)
Contact person	Dan Guapurá
Title	Mr.
Address	Juncal 1437 Of. 501; Montevideo -Uruguay
Telephone	+598 2916 2020
Email	dguapura@af.com.uy

Organization name	EF Asset Management Administradora de Fondos de Inversión Sociedad Anónima
Contact person	Leonardo Isoardi
Title	Partner for the Trustee of Bosques del Uruguay Trust Fund
Address	Juncal 1392
Telephone	+598 29001000
Email	efam@ferrere.com

2.1.5 Other Entities Involved in the Project

Organization name	ProSustentia
--------------------------	--------------

Role in the project	VCS certification consultant
Contact person	Federico Moyano
Title	Director
Address	San Martín 543, 3rd i, Buenos Aires, Argentina
Telephone	+54911-36338125
Email	fmoyano@prosustentia.com

2.1.6 Project Start Date (VCS, 3.8)

Project start date	31-July-2007
Justification	Is the date when the activities that lead to the generation of GHG emission removals (soil preparation) were first implemented.

2.1.7 Benefits Assessment and Project Crediting Period (VCS, 3.9; CCB, G1.9)

Crediting Period	Project crediting period is of 100 years in line with the minimum 40 year period stated by standard.
Start Date of First or Fixed Crediting Period	31-July-2007 – 30-July-2107
Total Number of Years of Crediting Period	100 years
CCB Benefits Assessment Period	26-March-2013 - 30-July-2107

2.1.8 Project Location (VCS, 3.11; CCB, G1.3)

☒ KML file has been provided

The map in Figure 1 shows the project zone and project area (considering its productive area of 14,365.43 ha and 13,920.8ha of planted area for this monitoring period), as part of the Forteko's project.

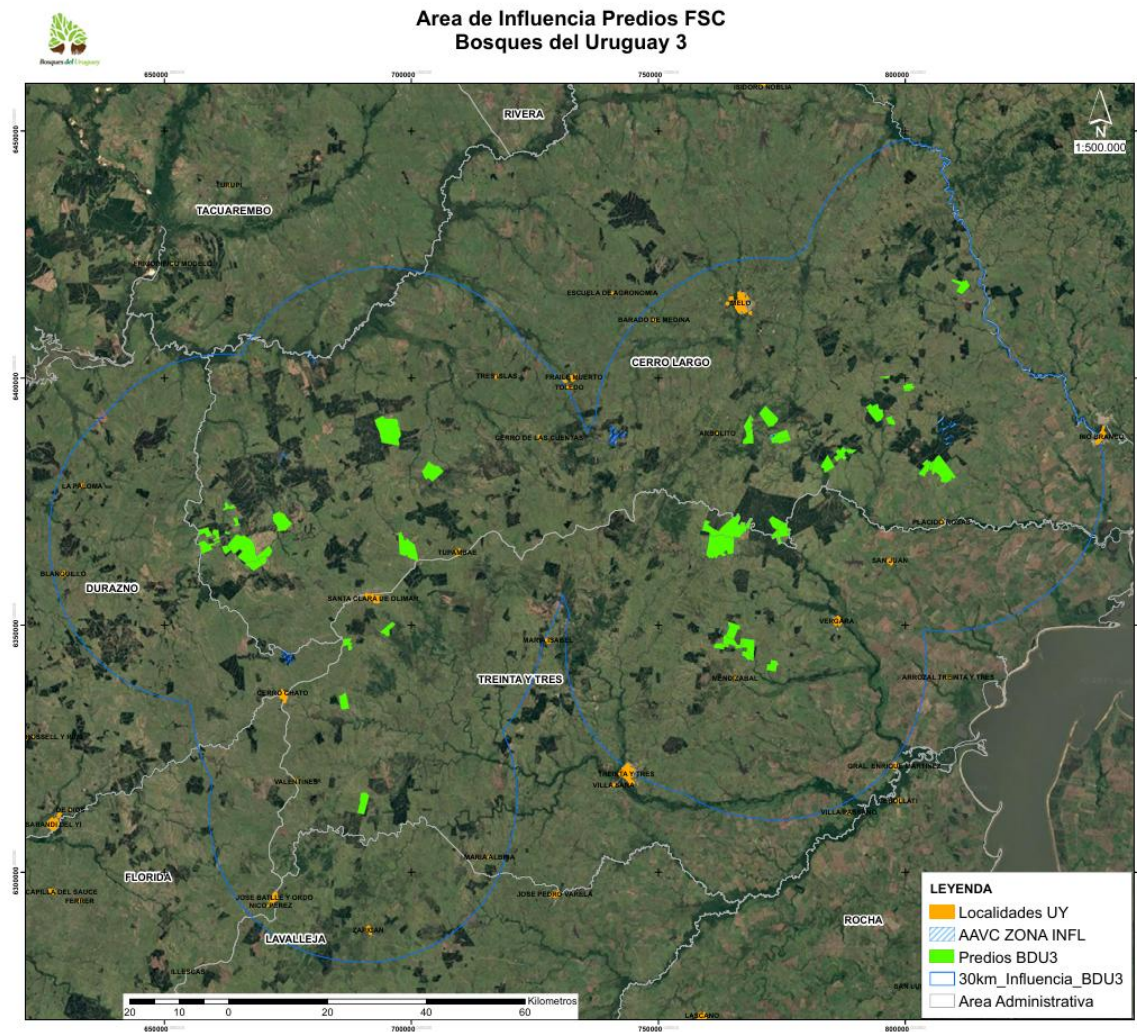


Figure 1. Map of Uruguay showing the location of the properties included in the proposed project activity, the project zone for the project as well as HCVAs and communities.

Table 1: Indicators for unique identification of all project properties and productive area (ha)

Property name	ID predio	Cadastral Unit n°	Productive area (ha)	Latitude	Longitude
Cerros del Chircal	3036	10925 10926	485,23	-54,815739	-32,698516
Canito	3038	864	654,9	-54,126382	-32,983834
Italiano	3016	844	428,32	-54,173493	-32,971565
Carricoche	3040	15602 15603 15604 15605	39,81	-53,849297	-32,497303
El Chunchu	3034	8481 8482 8483 10276 13076	289,97	-53,759063	-32,649083
La Roja	3029	12481 12482 12483	156,9	-53,806162	-32,512506
Las Palmas	3037	1792	319,85	-53,676918	-32,325000
Los Teros	3043	9646 9648	120,443	-53,836266	-32,576564
Santa Mariana	3042	15952 15953	1115,1	-53,731703	-32,641681
Tronco Perez	3039	2070 8470	453,27	-53,861587	-32,570453
El Nacho	3026	15669 15670 15673 15675	338,46	-53,943433	-32,639056
El Chico	3014	729 3194 4351 4381 4439 7948 8594	130,92	-55,245309	-32,794134
Jotapé	3031	4246 4497 4504 4513	44,28	-55,253800	-32,761136
El Huaso	3019	7502 706	524,63	-55,134788	-32,780785
Pudú	3027	15669 15670 15674 15672 15675	21,08	-55,282061	-32,824159

Las Flacas	3017	736 738 7482 7484 8591 15883	74,03	-55,318759	-32,809483
El Ombú	3009	791 9321 1181 1206 6325 9317 9318 9319 9320 9322	2204,83	-54,218982	-32,786487
La Hacienda	3013	901 904 956 3682	682,79	-54,086460	-32,580314
La Loma	3012	954	484,7	-54,148503	-32,994603
Los Azules	3033	15039	316,51	-53,969551	-32,651964
Los Condores	3024	7758 12379 12380 13357 14216	646,61	-54,076646	-32,774885
Mique Mique	3030	3000	268,31	-54,076564	-33,028931
Manolete	3010	12574 12575 12576 12577	1890,32	-55,186477	-32,860535
Pesadilla	3007	557 558 7517	61,5	-54,879613	-32,843058
Quiebra Yugo	3015	13161 13162 13167 13168 15489	310,45	-55,261895	-32,838695
Santa Hildara	2019	4110 13449 13450	1357,84	-54,930094	-32,602918
El Enzo	3041	9405	29,98	-55,997109	-33,120374
La Gordi	3032	3878	6,39	-54,913232	-32,979052
Las Miradas	3023	4109	173,34	-55,000160	-32,999848
Matador	3028	4891 4893	335,75	-54,957786	-33,291158

2.1.9 Title and Reference of Methodology (VCS, 3.1)

Type (methodology, tool, module)	Reference ID (if applicable)	Title	Version
Methodology	AR-ACM0001	Afforestation and reforestation of degraded land	05.2.0, EB 65

Tool	AR-TOOL02	Combined tool to identify the baseline scenario and demonstrate the additionality in A/R CDM project activities	01
Tool	AR-TOOL12	Estimation of carbon stocks and change in carbon stocks in deadwood and litter in A/R CDM project activity	01
Tool	AR-TOOL14	Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activity	01
Tool	AR-TOOL16	Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities	01.1.0
Tool	AR-TOOL15	Estimation of the increase in GHG emissions attributable to displacement of pre project agricultural activities in A/R CDM project activity	01
Tool	-	Calculation of the number of sample plots for measurements within A/R CDM project activities	2.1.0
		Procedures to demonstrate the eligibility of lands for afforestation and reforestation CDM project activities	1.0
Tool		Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities	1.0
		Estimation of non-CO2 GHG emissions from burning of biomass attributable to a CDM A/R project activity	3.1
		Guidance on application of the definition of the project boundary to A/R CDM project activities	1.0
		Guidance on conservative choice and application of default data in estimation of the net anthropogenic GHG removals by sinks	2.0

2.1.10 Double Counting and Participation under Other GHG Programs (VCS, 3.23; CCB, G5.9)

2.1.10.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program, or any other form of community, social, or biodiversity unit or credit?

☐ Yes ☒ No

2.1.10.2 Registration in Other GHG Programs

Was the project registered or seeking registration under any other GHG programs?

☐ Yes ☒ No

2.1.10.3 Projects Rejected by Other GHG Programs

Has the project been rejected by any other GHG programs?

☐ Yes ☒ No

2.1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions (VCS, 3.24)

2.1.11.1 No Double Claiming with Emissions Trading Programs or Binding Emission Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit? See the VCS Program Definitions for definitions of emissions trading program and binding emission limit.

☐ Yes ☒ No

2.1.11.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system? See the VCS Program Definitions for definition of GHG-related environmental credit system.

☐ Yes ☒ No

2.1.11.3 Supply Chain (Scope 3) Emissions

Do the project activities affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?

☒ Yes ☐ No

If yes:

Is the project proponent(s) or authorized representative a buyer or seller of the product(s) (goods or services) that are part of a supply chain?

☒ Yes ☐ No

If yes:

Has the project proponent(s) or authorized representative posted a public statement on their website saying, “Carbon credits may be issued through Verified Carbon Standard project [project ID] for the greenhouse gas emission reductions or removals associated with [project proponent or authorized representative organization name(s)] [name of product(s) whose emissions footprint is changed by the project activities].”?

☒ Yes ☐ No

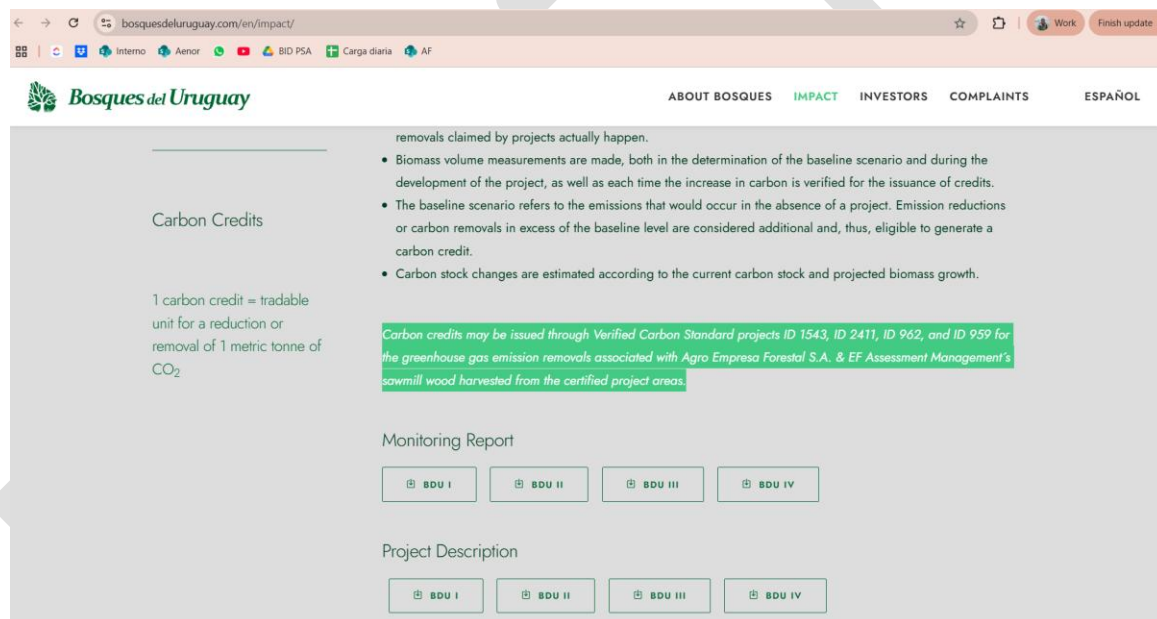


Figure 2. Print screen for the public statement on carbon credit emissions on BDU's webpage.

2.1.12 Sustainable Development Contributions (VCS, 3.17)

During this monitoring period, the forest plantation of 13.920.8 ha with non-native species, was maintained generating local job and training opportunities as well as continued carbon removals. At the same time the company has worked on different projects with communities in the project area, such as tree plantation events, training and resources donations, among others. Regarding biodiversity, the identification and conservation of areas of high conservation value has led to biodiversity enhancement. All these activities have resulted in a series of SD contributions listed in

the table below (table 2), in line with the national SDGs¹². Forteko project contributes to the achievement of the country's goals defined to reach the SDGs 4, 8, 11, 13 and 15. Evidence of the project's SD contributions are provided throughout the document and in the appendix 6 to this report¹³.

¹² <https://www.opp.gub.uy/es/ods>

¹³ Evidence also included in Drive shared folder "SDG"

Table 2: Sustainable Development Contributions

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime
1)	4.3	4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex	Implemented activities to increase	1,704 direct and indirect workers trained	The project has improved non-formal education and training of 2,370 direct and indirect workers.
2)		Number of students who received sustainable development curricula	Implemented activities to increase	39 students have received sustainable development subject in the curricula through the companies training and presentations at rural schools	The project has improved non-formal education of 89 students.

3)		Number of schools and students impacted by infrastructure improvement or material donations	Implemented activities to increase	319 students impacted by infrastructure improvement or material donations in 7 rural schools.	The project has improved 7 schools' infrastructure, by donating working hours and materials improving 695 student's education experience.
4)	8.	Number of formal new employments	Implemented activities to increase	747 new job positions generated	1,413 new job positions generated and occupied by local communities
5)		8.7.1 Proportion and number of children aged 5-17 years engaged in child labour, by sex and age	Implemented activities to decrease	No child labour as a company's policy	No child labour as a company's policy
6)	13.0	Tonnes of greenhouse gas emissions removed	Implemented activities to increase	By maintaining the forest plantation of 13,920.8 ha, the project has removed 4,810,529 metric ton of carbon from the atmosphere during the monitoring period	9,238,511 metric ton of carbon dioxide removed from the atmosphere
7)	15	Forest area	Implemented activities to increase	13,920.8 ha of forest plantation	13,996.5 ha of forest plantation

8)	15.2.1 Progress towards sustainable forest management	Implemented activities to increase	5,989.2 ha of planted forest certified FSC implementing sustainable forest management	5,989.2 ha project area certified under FSC
9)	Endangered or threatened species conservation	Implemented activities to increase	Not monitored during this monitoring period.	No endangered species from IUCN list found, but 3 birds from the country's SNAP list.
10)	Important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	Implemented activities to increase	1,673.6 ha of native forest and grasslands conserved	1,673.6 ha of native forest and grasslands conserved

2.2 Project Implementation Status

2.2.1 Implementation Schedule (VCS, 3.2; CCB, G1.9)

Forests were initially based on long term rotation *Loblolly Pine* (*Pinus taeda*) and to a lesser extent *Hybrid Pine* (*caribaea x elliotti*). In 2017, and after the properties were sold to BDU III Trust Fund, a change in the species was implemented on up to 21% of total planted area, only on some of the properties. This replacement took place from 2017 to 2024 with the plantation of *Eucalyptus grandis* (69%) plantations and *dunnii* (31%). During this monitoring period 1,478 ha of pinus were replaced. Regarding the forest management for existing plantations, thinning for those individuals with 7 years took place. Moreover, forest inventories took place annually in permanent plots for those individuals more than 3 year old. No other events has impacted the GHG removals during this verification period.

Regarding biodiversity monitoring, farms area being monitored according to plan, and practices are still certified with FSC standard covering 5,989.2 ha of the project.

Last, regarding community work, a new approach has been designed and implemented, where the different development projects are now unified under the program “Comunidad más cerca” (Closer Community). This program allows a more organized work with the community within the project zone.

Date	Milestone(s) in the project's development and implementation
Jan-Dec 2006	Forest projects presented to the Forest Directorate and EIA to the Environment Office with public comment
Jul 2007	Project start date with land preparation for plantation over degraded grassland.
Aug 2008	First environmental characterization of farms with stakeholder's participation
Nov 2009	Properties were first certified FSC
Nov 2009	Annual biodiversity survey reports of the projects
Jul 2010	Silvicultural activities started (pruning and thinning)
Jan-Dec 2011	Community activities were performed
Mar 2013	First productive project created with rural communities
Jan 2013	Project was VCS validated
Apr 2017	Forteko lands are bought by BDU III Trust Fund

May 2017	First verification took place for period (2007-2013)
Jun 2017	First <i>Pinus taeda</i> plantation area harvested and replaced by <i>Eucalyptus</i>
Sep 2019	New environmental characterization of farms
Jan 2022	Monitoring indicators re-definition
Jun-Nov 2022	Annual Biodiversity monitoring at Las Grutas and La Jangada farm
Sep 2022	Project seeks CCB validation
May 2023	First ESG report published (2022)
May 2023	Implementation of <i>Closer Community Program</i> (first edition)
Jun-Nov 2023	Annual Biodiversity monitoring at Las Grutas and La Jangada farm
May 2024	Second ESG report published (2023)
Jun-Nov 2024	Annual Biodiversity monitoring at Las Grutas and La Jangada farm
Mar 2025	General communication and training with project contractors
May 2025	Third ESG report published (2024)
Sep 2025	FSC re-certification of included farms
Sep 2025	New CCB public consultation request in VERRA's website
Sep 2027	First clear-cut harvest expected for <i>Eucalyptus dunni</i>
Dec 2026	Analysis for the re-categorization of conservation level for all farms
Sep 2035	First clear-cut harvest expected for <i>Eucalyptus grandis</i>
Jul 2107	End of project crediting period

2.2.2 Baseline Reassessment (VCS, 3.2.6, 3.2.7)

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes

☒ No

2.2.3 Methodology Deviations (VCS, 3.20)

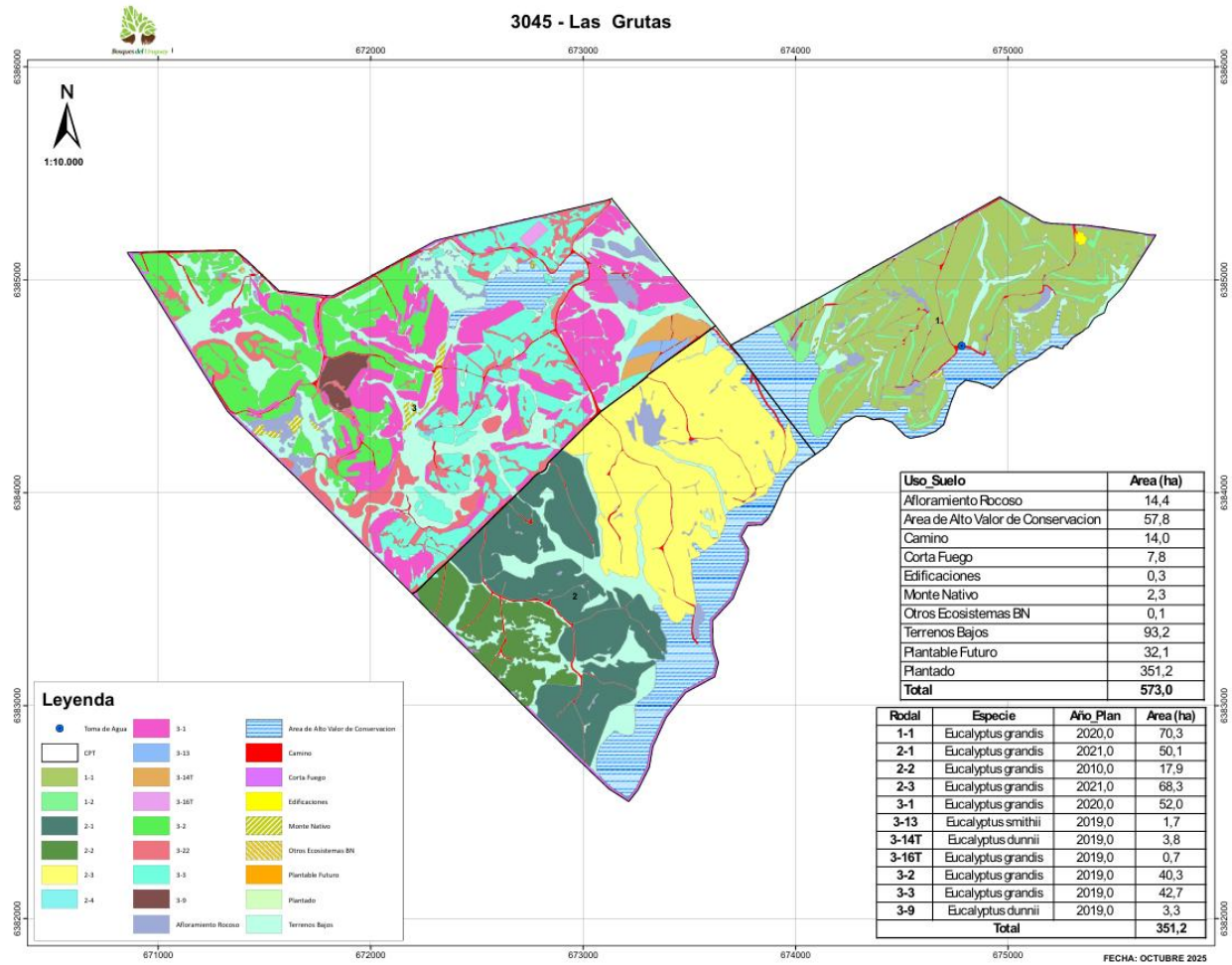
There are no methodology deviations

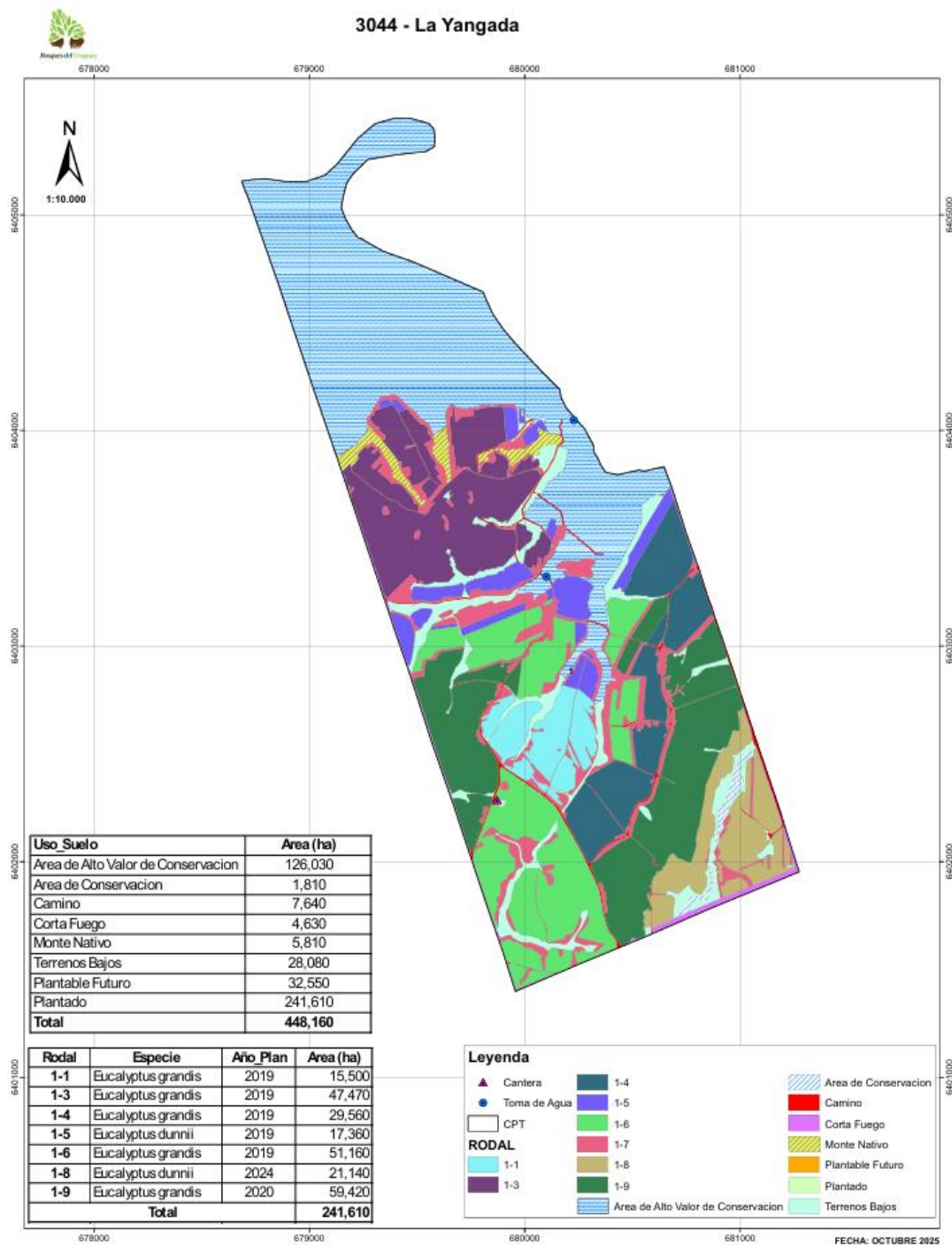
2.2.4 Minor Changes to Project Description (CCB Program Rules, 3.5.6)

Current monitoring period

- a. **High conservation value areas:** There are high conservation value areas in the project zone which were not initially reported in the biodiversity monitoring plan in the PD, although they were mapped and included in the project zone maps; and as so, have been further detailed in section 5.3 of this document. These can be found in La Jangada and Las Grutas properties, within the project zone, which take part in the Trust Fund BDU 3 (the same as that for the farms of the project area).

DRAFT





In the case of Las Grutas, it's area is of particular interest because certain attributes were identified, such as the presence of some ferns that are rarely found in the country. On the other hand, La Jangada, due to its location on the banks of the Río Negro provides environmental diversity and, consequently, the potential to host a significant wealth of native tetrapod fauna.

Both were initially left out from the first MR because they were not areas within the project area's farms, but provided they are located in the project zone and thus impacted by the project they are now detailed and it's monitoring in line with the monitoring plan detailed in the PD.

Prior monitoring period

There are minor changes to the CCB project description. The PD states that the crediting period and GHG accounting period for CCB is the same as the one for the VCS PD, while the CCB was validated for the period as of the second verification, this being 26 March 2013 till the end of the crediting period (30-July-2107).

2.2.5 Project Description Deviations (VCS, 3.21; CCB Program Rules, 3.5.7 – 3.5.10)

1. Deviations in current monitoring period:

There are a few deviations from the project's description that do not impact applicability of the methodology, additionality or the baseline scenario. As it can be seen they are cartographic adjustments to plantation areas within project area, and monitoring plan regarding stratus and plots number due to changes in species planted.

b. **Project boundary:** Regarding the project boundary, there have been some cartographic adjustments varying the productive and total surface planted during this verification period. The changes in the productive area are a consequence of adjusting to updated regulations regarding withdrawals from bodies of water, native forests, among others. The table below shows both productive and planted areas for the different properties within the project area:

Property name	ID predio	Cadastral Unit n°	Productive area at validation (ha)	Current productive area (ha)	Previous area planted (ha)	Current area planted (ha)
Cerros del Chircal	3036	10925	483,06	485,23	461,16	416,85
		10926				
Canito	3038	864	698,12	654,9	679,84	636,83
Italiano	3016	844	428,26	428,32	415,23	415,25
		15602				
Carricoche	3040	15603	41,84	39,81	39,81	39,81
		15604				
		15605				
		8481				
El Chuncho	3034	8482	310,97	289,97	289,97	289,98
		8483				
		10276				
		13076				
		12481				
La Roja	3029	12482	172,17	156,9	156,9	156,9
		12483				
Las Palmas	3037	1792	369,13	319,85	357,32	319,85
		9646				
Los Teros	3043	9648	132,4	120,443	120,43	120,43
		15952				
Santa Mariana	3042	15953	1147,92	1115,1	1118,44	1115,1
		2070				
Tronco Perez	3039	8470	452,82	453,27	433,38	433,37
		15669				
El Nacho	3026	15670	354,53	338,46	338,45	316,3
		15673				
		15675				
		729				
El Chico	3014	3194	177,28	130,92	104,27	104,76
		4351				
		4381				
		4439				
		7948				
		8594				
		4246				
Jotapé	3031	4497	47,59	44,28	43,75	43,75
		4504				
		4513				
El Huaso	3019	7502	520,99	524,63	498,87	458,73
		706				
		15669				
Pudú	3027	15670	21,83	21,08	21,75	21,08
		15674				
		15672				
		4110				

c. Monitoring plan:

Due to changes in the species planted, new strata were included during this monitoring period as specified below. Moreover, the number of sample plots has also changed. In those stands with less than 3 years since plantation, no plots are yet defined as they are not monitored.

Table 3. Updated strata

SPECIE	YOP	CONEAT	Stratum	Plots
<i>Eucalyptus dunnii</i>	2017	2	1	1
<i>Eucalyptus dunnii</i>	2018	2	2	6
<i>Eucalyptus dunnii</i>	2019	2	3	2
<i>Eucalyptus dunnii</i>	2019	8	4	-
<i>Eucalyptus dunnii</i>	2021	2	5	5
<i>Eucalyptus dunnii</i>	2022	2	6	
<i>Eucalyptus dunnii</i>	2023	2	7	
<i>Eucalyptus dunnii</i>	2023	8	8	
<i>Eucalyptus dunnii</i>	2023	G	9	
<i>Eucalyptus grandis</i>	2017	2	10	13
<i>Eucalyptus grandis</i>	2018	2	11	9
<i>Eucalyptus grandis</i>	2019	2	12	5

<i>Eucalyptus grandis</i>	2019	8	13	5
<i>Eucalyptus grandis</i>	2019	G	14	
<i>Eucalyptus grandis</i>	2020	2	16	-
<i>Eucalyptus grandis</i>	2020	8	17	1
<i>Eucalyptus grandis</i>	2021	2	18	5
<i>Eucalyptus grandis</i>	2022	2	19	
<i>Eucalyptus grandis</i>	2023	8	20	
<i>Eucalyptus grandis</i>	2023	2	21	
<i>Eucalyptus grandis</i>	2024	2	22	
<i>Eucalyptus grandis</i>	2024	8	23	
<i>Pinus taeda</i>	2007	2	24	2
<i>Pinus taeda</i>	2008	2	25	83
<i>Pinus taeda</i>	2008	8	26	9
<i>Pinus taeda</i>	2008	otros	27	1
<i>Pinus taeda</i>	2009	2	28	24
<i>Pinus taeda</i>	2009	8	29	3
<i>Pinus taeda</i>	2010	2	30	68
<i>Pinus taeda</i>	2011	2	31	16
<i>Pinus taeda</i>	2013	2	32	-
<i>Pinus taeda</i>	2013	8	33	-
<i>Pinus taeda</i>	2013	G	34	-
TOTAL			33	258

Regarding silvicultural activities, the changes have already been detailed in previous deviations

- d. **LTA value:** Section 3.2.30 of the VCS Standard V.4.7 mentions: *The long-term average GHG benefit shall be calculated at each verification event, meaning the long-term average GHG benefit may change over time based on monitored data.* It may not be considered a deviation, but the ex-post LTA recalculation based on actual biomass values for the monitoring period, plus additional area species replacement, led to an increase in the LTA value to 4,999,728 tCO₂e, 10.2% higher.

In conclusion, all the deviations previously mentioned do not impact neither the applicability of the methodology and/or additionality, nor the appropriateness of the baseline scenario. The changes are expected from a change in authorities and financial sustainability of the project which provide an explanation for the outcome.

2. Deviations at previous monitoring period:

Land ownership

Since the last VCS verification, changes in the project's land ownership took place from previous owner Forestal Tekoayhu S.A to BDU III Trust Fund. The corresponding notarial documents are available for VVB during verification¹⁴.

Regarding the project's authority, the corresponding deed of accession and deed of partial release¹⁵ were signed by previous project proponent -Forestal Tekoayhu SA-, granting EF Asset Management (EFAM), Administradora de Fondos de Inversión S.A the issuance representor capacity.

BDU III (and Forteko Project) is operated and administered by Agroempresa Forestal (AF) on behalf of "Fideicomiso Financiero Forestal Bosques del Uruguay III" (the trust fund). Besides being the project administrator and manager, AF is the trust fund administrator. Through a Service Agreement, the Trustee (EFAM) appoints the Administrator (AF), to fulfill the task of managing the trust assets and carry on the implementation of the Business Plan. Notwithstanding this, the Trustee maintains responsibility for the management of the Administrator tasks outsourced to it. This is reflected on the BDU III Trust Fund Prospect¹⁶ document.

Besides this document, the Trustee EFAM has granted a special power of attorney to the Administrator AF to act in the name of EFAM to carry on all operational and commercial activities related to the project. Among these activities are the necessary tasks to certify the carbon credits that could be generated with Forteko project. Once issued, the carbon credits will belong to the Trust Fund as the project harvested wood does.¹⁷

¹⁴ Property certifications available to VVB

¹⁵ Documents available for VVB during verification

¹⁶ BDU III Trust Fund Prospectus; 10/2016; Available at: <https://www.bosquesdeluruguay.com/media/2022/03/Prospecto-de-Emission-BDU-3.pdf>

¹⁷ The power of attorney is available to the VVB during verification in shared folder "Ownership".

AF is the manager of the business and the legal entity of the group, it is a Uruguayan company founded in 2000, leader in forestry services and in field administration. The company also provides services to financial forest trusts Bosques del Uruguay I, II, IV and Gutiérrez Zaldivar. AF guarantees the development of the forests and the entire enterprise, under a strict business plan and a system for reporting results and permanent audits, which assure the investor a participation profitable in this productive project.

The fiduciary of Bosques del Uruguay I, II, III and IV is EF Asset Management, Administradora de Fondos de Inversión S.A. It was created in 2003 by Ferrere Abogados and CPA Ferrere in Uruguay. It is about the biggest private trust administrator in the country, and has issued the largest number of financial trusts in the Uruguayan market, such as UTE 2004, Urban Collective Transport of Montevideo, CFP, NZFSU I and Pronto! among others.

Contact detail for project proponents is included in the title page of this document and the CCB PD under validation. Corresponding non-permanence risk assessment was completed in the corresponding template.

The outcome of this deviation has no impact on baseline nor additionality analysis. AF is registered in VERRA under other VCS certified projects: BDU and BDU II, with a recognized career in forest management.

Project boundary

The forest area of the project slightly changed from 16,553.31 to a productive area of 16,181.5ha. The difference are explained by cartographic adjustments and changes in the productive area due to adjustment to legislation during reforestation activities. The total project area was modified, but without changes in the project boundary, thus the new total area is presented in this verification with a detailed explanation of the modification, but the project boundaries will always be the same. The reduction in the forest area does not represents a reversal (according to the VCS document Program Definitions) or a catastrophic event, and then the project participant did not communicate this to the VCS nor monitored the loss. None of these situations have occurred within Forteko's project boundaries.

Table 4. Deviations in productive areas of the project

Farm	Area at last verification (ha)	Current productive area (ha)	Area planted (ha)	Area difference (Ha)	Area difference (%)
Carricoche	42.71	41.84	39.81	-0,87	-2,04%
El Chuncho	314.7	310.97	289.97	-3,73	-1,19%
La Roja	179.52	172.17	156.90	-7,35	-4,09%
Las Palmas	383.56	369.13	357.32	-14,43	-3,76%
Los Teros	136.71	132.40	120.43	-4,31	-3,15%
Santa Mariana	1163.5	1147.92	1118.44	-15,58	-1,34%
Tronco Perez	476.05	452.82	433.38	-23,23	-4,88%
Canito	673.05	698.11	679.84	25,06	3,72%
El Italiano	437.83	428.26	415.23	-9,57	-2,19%
El Nacho	368.89	354.53	338.45	-14,36	-3,89%
Cerros del Chircal	523.49	483.06	461.16	-40,43	-7,72%
El Chico	178.33	177.28	104.27	-1,05	-0,59%
Jotape	48.58	47.59	43.75	-0,99	-2,04%
El Huaso	509.81	520.99	498.87	11,18	2,19%
El Pudú	20.67	21.83	21.75	1,16	5,61%
Las Flacas	335.03	348.86	326.05	13,83	4,13%
El Ombu	2475.3	2287.67	2254.31	-187,44	-7,57%
La Hacienda	751.3	711.45	703.29	-39,85	-5,30%
La Loma	496.07	484.25	475.49	-11,82	-2,38%
Los Azules	355.14	343.38	316.70	-11,76	-3,31%
Los Cóndores	705.1	683.78	682.09	-21,32	-3,02%
Mique Mique	285	277.02	270.52	-7,98	-2,80%
Manolete	1889	2042.81	1906.01	153,81	8,14%
Pesadilla	966.54	977.10	54.57	10,56	1,09%
Quiebra Yugo	315.23	316.25	289.11	1,02	0,32%
Santa Hildara	1455.41	1410.37	1357.83	-45,04	-3,09%
El Enzo	303.88	224.55	28.48	-79,33	-26,11%
La Gordi	205.07	185.50	185.53	-19,57	-9,54%
Las Mimadas	194.63	176.67	155.70	-17,96	-9,23%
Matador	363.21	352.89	327.68	-10,32	-2,84%
Total general	16,553.31	16,181.5	14,413	-371,81	-2,25%

The major difference are at El Ombú (-187.44ha) and Manolete farm (153.81ha). In the case of El Ombú, the difference is explained by cartographic adjustment in the productive area. In the second case, the difference is explained, as anticipated in previous verification, that Manolete property area was referring to an effective planted area during last verification and that the rest of the farm would appear in future verifications within a new strata. Its project boundary (Manolete's) at validation was 2,176ha. *"The current value corresponds to the net area under forestry. It is worth*

to remark that the farm suffered a forest fire before validation and the area used now is the actual forest remaining after the incident. The rest of Manolete farm will appear in the following verification events but in a different strata.”

Plantation and forestry cultural activities

In June of year 2017, the first pinus plantation was harvested and later replaced, in the same year, by *Eucalyptus dunni* in Manolete property. During 2019 and 2020, other properties would follow (El Chico, El Pudú, Jotape, Matador, La Gordi y Las Mimadas). As of June 2017, harvest of *Pinus taeda* took place and 1.738ha (12% of total project area) was planted with *Eucalyptus*, both *grandis* (74.6%) and, to a lesser extent (25.4%), *Eucalyptus dunni*. The main purpose of this change was to benefit soil productivity, demand and market opportunities, as well as to increase carbon fixation due to better standing volumes obtained. The main destiny of the wood is still high quality timber. Solid wood of *Eucalyptus grandis* allows an excellent growth rate and final volume, added to the fact that it is recognized as a less invasive species than Pinus.

These modifications to the project does not change additionality condition given the rotation periods are still long-termed (since *Eucalyptus grandis* is planted in a higher percentage than *Eucalyptus dunni*) and original baseline and additionality analysis still apply (see further analysis below in this section “Baseline and additionality” and in Appendix 1). On the other hand these deviations have an impact on the long-term average, and for this verification period it has been recalculated and resulted in 4,534,914 tCO₂e (with a total GHG benefit of 453,491,421 tCO₂e). For this reason, information on the new parameters considered are included in section 3.1.1 of Data and parameters at validation and 3.1.2 of Data and parameters at verification, and the updated spreadsheet available to VVB. In this sense, a new Pinus´ growth projection was used, based on local growth parameters. Moreover, for the new ex-ante estimation, the Root-shoot ratio for tree species used was the one provided by IPCC Guidelines 2003, further explained in the aforementioned section (while equation for R value is used for ex-post calculations).

In the case of Pinus silvicultural activities, AF implemented changes regarding the thinning year, from 5 and 10 to year 3 and 12. On the other hand, the plantation with Eucalyptus species will be managed according to the forest management plan detailed below:

Eucalyptus

1. Site preparation and plantation

Plantation site is prepared by ploughing the soil on strips where the trees will be planted. This will be done in a certain manner that reduces the risk of erosion and degradation. The objective of

ploughing is to favor the establishment and initial development of plants by increasing the aeration, infiltration and nutrient availability of the soil, and controlling weeds. Soil disturbance is limited to the width of the strips and is carried out only once throughout the rotation cycle.

Weed control is performed by using glyphosate. Two applications are carried out some days before tillage and/or plantation. In addition, grazing is used as an effective method to control the vegetation before planting. Generally, the last row (4th row) and the last intermediate row (3rd row) are applied with glyphosate. The rest of the rows are made with selective and pre-emergent herbicides which do not contain glyphosate. Burning is not practiced as a weed control technique.

Planting is performed mainly manually during spring or fall. The planting stocking are 1450 trees per hectare for *Eucalyptus dunnii* and 1100 and 650 tree per hectare for seed and clone *Eucalyptus grandis* respectively.

Seedlings are bought from nurseries renowned for their quality. Seed sources for the production of these seedlings are selected based on assessments made by institutions or companies in Uruguay, South Africa and Australia which ensure good performance in the region. Evaluation criteria to select the genetic origin takes into account desirable features for solid wood production (e.g. trunk straightness, production, health, density).

On the first year of the plantation, activities are carried out before and after planting. Ant control is systematically performed over the whole area using chlorine-free insecticides with reduced permanence in the ecosystem 15-30 days before sowing. Afterwards insecticides are selectively applied on ant paths and nests. Regarding fertilization, this manually applied around each tree after plantation (NP) with slow-release fertilizer (20 g per tree).

Plants establishment, survival control, reposition and quality is monitored within the first few weeks after planting, checks are performed to identify and replace lost plants.

2. Pruning and Thinning

High quality timber plantations, that is the case of *Eucalyptus grandis* for this project, require a more intensive silviculture than those for the production of wood for energy or pulp (*Eucalyptus dunnii* in this case), being necessary several treatments such as pruning and thinning along the rotation. These treatments allow logs to reach greater diameter and quality increasing their market value.

Pruning and thinning interventions are not carried out for *Eucalyptus dunnii*, ending with a final density of around 1,200-1450 trees in year 10.

For *Eucalyptus grandis* pruning interventions are carried out at the following heights, ages and number of trees per hectare (for seedlings):

Pruning	Height	Age	Trees/ha
First	3 m	1.5-2	500-550
Second	6 m	3	350
Third	9 m	3.5-4	250
Fourth	11 m	4-5	250

For *Eucalyptus grandis* three thinning interventions are performed in the case of seed, and two interventions when it is a clone. The first thinning, carried out at year 2, removes half of the stocked volume but it does not generate revenues (waste thinning). Its goal is to eliminate the competence and remove the bad shaped and weak individuals and only applies when it is seed. In the second thinning, between year 7-8, all harvested trees goes for pulp industry leaving a total of 350 individuals per ha. Finally, in the third thinning (year 11-12) about a third becomes saw timber and two thirds pulpwood. This last thinning leaves a final density of 250 trees/ha of the highest quality.

Cattle grazing will be carried out all over the project area before plantation takes place and after plantations have reached 2 years of age so the individuals are not damaged. Within the unplanted areas cattle will continue grazing. Grazing agreements with external cattle producers will be signed throughout the project life.

3. Final Harvest

Final felling is at year 10 in the case of *Eucalyptus dunnii* and year 18-20 for the *Eucalyptus grandis*. In both cases, pre-harvest inventory is conducted. In *Eucalyptus dunnii* coppice are managed after harvest for the second rotation cycle. At this stage stump from thinning are controlled in *Eucalyptus grandis*.

Monitoring plan

Due to changes in the operation authorities, and the impossibility to access information from previous owners, there has been changes in the definition of strata. In this case instead of region, soil classification is considered, along with plantation year and species, to define monitoring strata. Soil classification is considered as robust as region in order to define a monitoring stratum, especially taking into account the project is limited to two departments in the same country's region.

At the same time, the replacement of 12% of *Pinus* with *Eucalyptus* demanded the increase in the number of stratum for monitoring. The new classification and number of plots monitored are detailed in table 4.

Table 4: Stratum and plots during verification

Species	Year plantation	Soil (CONEAT)	Area (ha)	No plots
<i>Pinus taeda</i>	2007	2	571.65	5
	2008	2	3,510.30	81
	2008	8	1,079.59	9
	2008	Otros	74.52	3
	2009	2	1,618.04	25
	2009	8	209.30	3
	2010	2	3,254.60	68

	2011	2	2,293.8 1	16
	2012	8	3.27	-
	2013	2	32.15	-
	2013	8	3.36	-
	2013	G	24.86	-
<i>dunnii</i>	2017	2	29.20	1
	2018	2	194.67	6
	2018	G	45.42	-
	2019	2	7.92	-
	2019	8	163.44	-
<i>grandis</i>	2017	2	391.91	13
	2018	2	256.00	9
	2019	2	171.64	6*
	2019	8	149.95	5*
	2019	G	1.19	-

	2019	Otros	0.12	-
	2020	2	4.11	-
	2020	8	6.45	-
	2021	2	315.47	11*
	TOTAL		14,413	260 ¹⁸

*projected plots to be installed after 3 years from plantation, as well as for those planted in year 2018.

Due to the addition of a new species to the plantation plan, additional variables and default values are added to the “parameters at validation and parameters detailed at monitoring tables (all parameters now listed in section 3.1)

This changes are also embodied in a new LTA estimation based on changes in surface area for *Pinus*, and new species, as of 2017. This new LTA value equals 4,534,914 tn CO₂e¹⁹.

Quality assurance and Quality control

Although not considered a deviation further information on QA/QC process is included in the present document in section 3.1.3 stating:

Once field measurements have been collected, the contractor sends them by email specifying the type of inventory carried out, establishment surveyed, number of plots and location in kmz format. It is important to clarify that all those doubts or modifications that were carried out in the field are clarified in the column called “observations”.

All the information sent is reviewed by the head of inventories. In case of finding any inconsistency or doubt, a field check is performed. Once the data has been reviewed, it is processed using the

¹⁸ 21 of those (*) will be installed in years 2022 to 2024.

¹⁹ Calculation spreadsheet available to VVB

data processing system Caliper [<https://webapp.avlchile.cl/caliper/caliper.dll>]. It is a software for processing forest inventories that calculates dasometric variables and delivers a cut of the forest according to the defined products. In addition, it has a module called "Validator", which allows a review of the consistency of the data, detecting possible inconsistencies in the values that could affect the results. In case of detecting inconsistencies, these are analyzed and evaluated prior to processing.

The Vtree equation used in last verification was changed for the *smalian* volumetric equation using data from a regression equation by Bruce et al. (1968)²⁰, extensively used in forestry sector.

The parameters for the regression equation are obtained from studies conducted within the project area, farms owned by BDU and neighboring companies, with variables derived from a data set of more than 50 trees and in line with the conditions stated in A/R Methodological Tool "Demonstrating appropriateness of allometric equations for estimation of aboveground tree biomass in A/R CDM project activities" V. 1. Information on the procedures are detailed in the Agroempresa Forestal Forest Inventory Manual, section 11²¹.

The equation and parameters used by species are as follow:

$$dwb_{(b)}^2/DBHwb^2 = b_1 X^{1.5} + b_2 (X^{1.5} - X^3) DBHwb + b_3 (X^{1.5} - X^3) HT + b_4 (X^{1.5} - X^{32}) HT DBHwb + b_5 (X^{1.5} - X^{32}) HT^{0.5} + b_6 (X^{1.5} - X^{40}) HT^2$$

Where,

$dwb_{(b)}^2$ =Diameter (cm) without bark, measured at trunk height (m)

DBHw =Diameter (cm) with bark, measured at 1,3 mts from soil

b

HT =Total height (m)

h_j =Height (m) from soil till diameter d_j (j= 1,..., n)

X =(HT - h_j) / (HT - 1,3)

²⁰ Bruce, D. Curtis, R.O, Vancoevering, C. 1968. "Development of a system of taper and volume tables for red alder", For. Sci. 14(3): 339-350.

²¹ Forest Inventory manual and associated information available for VVB during verification in shared folder "Forest Management"

b_i =Parameters to be estimated ($i=1, \dots, 6$)

Where, parameters to be estimated for each species are²²:

	<i>Eucalyptus grandis</i>	<i>Eucalyptus dunnii</i>	<i>Pinus elliotti</i>
b_1	0.88612	0.79307	0.796790
b_2	-0.01139	-0.01139	-0.011734
b_3	0.01628	0.01645	0.015011
b_4	-0.00008	-0.00002	-0.000041
b_5	-0.00137	0.00272	0.013051
b_6	0.00004	-0.00006	-0.000145

The universal volumetric equation by *Smalian* used is:

$$V_{\text{tree}} = \text{DBH} \times \text{DBH} \times 0.785 \times H$$

Where,

V_{tree} = Total volume without bark (m^3)

DBH = Diameter (cm) extracted from Bruce et al. equation

H = Height (cm) equal to 1cm

The next step is to add each section calculated and applied factor to include total volume with bark.

Data and Parameters Available at Validation

New ex-ante estimations were conducted given the lack of access to previous estimations when the properties were bought. This estimations are based on new growing estimations, and minor

²² A large set of data is available, so the parameters value may vary according to the area involved or project. Detail to be discussed with VVB during verification.

changes in default values during ex-ante estimations. Even though different from the validation values, they are default values provided and recommended by methodology:

Dj: same values are used for Pinus, new values provided for Eucalyptus, as it was not included in ex-ante estimations during validation.

Rj: originally, ex-ante was estimated based on the equation provided in methodology, in this case, default values are used during ex-ante estimation and same equation during ex-post estimations

Bark volume: same values are used for Pinus, new values provided for Eucalyptus, as it was not included in ex-ante estimations during validation.

FiNi: Understanding that the 0,7 value during validation was incorrect, given all grassland without input of fertilizers is assigned an input factor of 1 according to methodology.

In more detail, with the planting of Eucalyptus, new data and parameters had to be added, which are detailed below and in the corresponding section 3.1.1 in this document. Moreover, default values are updated for ex-post estimations:

Data / Parameter	BEF _{2,j}
Data unit	Dimensionless
Description	Biomass expansion factor for conversion of stem biomass to above-ground biomass for tree species or group of species j
Source of data	IPCC default values (e.g. Table 3A.1.10 of IPCC GPG-LULUCF 2003) for ex-ante estimation, and default value 1.15 from CDM AR TOOL 14 for ex-post estimations.
Value applied	Ex-ante From 1.15 to 3.4, depending on the tree age for Pinus From 1.15 to 3.2 depending on the tree age for Eucalyptus Ex-post 1.15 default value
Justification of choice of data or description of	Default value for pinus and broadleaf species in temperate climate.

measurement methods and procedures applied	
Purpose of the data	N/A
Comments	Ex-ante: BEF varies with age, being the highest values for young plantations and the lowest for mature plantations. A conservative approach was taken varying the BEF very quickly, reducing it to a half by year 5 and considering the forest as mature at the age of 10 years.

Data / Parameter	CF _j
Data unit	t C t ⁻¹ d.m.
Description	Carbon fraction of tree biomass for species or group of species j
Source of data	Table 4.3 in IPCC 2006 Guidelines for National Greenhouse Gas Inventories - Volume 4 - Agriculture, Forestry and Other Land Use (no 2019 refinement)
Value applied	0.47
Justification of choice of data or description of measurement methods and procedures applied	Default value
Purpose of the data	Calculation of project emissions
Comments	N/A

Data / Parameter	D _j
Data unit	t d.m. m ⁻³

Description	Basic wood density for species or group of species j
Source of data	<p>Table 4.14 Basic wood densities (D) of selected temperate and boreal tree taxa from IPCC 2006 Guidelines for National Greenhouse Gas Inventories - Volume 4 - Agriculture, Forestry and Other Land Use (no 2019 refinement).</p> <p>For Eucalyptus: ACHUGAR, L.; SCAGLIONE, G. 2003. Evaluación de propiedades de la madera en clones de <i>Eucalyptus grandis</i> Hill (ex Maiden). Thesis Ing.Agr. Montevideo, Uruguay, Universidad de la República-Facultad de Agronomía</p>
Value applied	<p>0.44 for Pinus</p> <p>0.38 to 0.49 (depending on the tree age) for Eucalyptus</p>
Justification of choice of data or description of measurement methods and procedures applied	<p>Default value for Pinus</p> <p>For Eucalyptus:</p> <ol style="list-style-type: none"> 1) basic density values are taken from results of a thesis investigation work (national and local data) 2) the values used are the ones from the bottom of the confidence interval of 95%, to be conservative 3) values are plotted and tendency line is added, the tendency line with the highest r^2 4) power function is used to estimate the density values for the whole period 5) real and calculated values are plotted
Purpose of the data	Calculation of project emissions
Comments	N/A

Data / Parameter	R_j
------------------	-------

Data unit	Dimensionless
Description	Root-shoot ratio for species or group of species j
Source of data	Ex-ante: Table 3A.1.8 of IPCC GPG-LULUCF 2003 Ex- post: AR Tool 14 - "Estimation of carbon stocks and change in carbon stocks of trees and shrubs"
Value applied	Ex-ante Pinus: 0.23 to 0.46 depending on aboveground biomass; Eucalyptus: 0.20 to 0.45 depending on biomass values Ex – post Varies depending on an equation which used the aboveground biomass as an input (specific values are presented in the ex-post carbon estimations)
Justification of choice of data or description of measurement methods and procedures applied	Default values according to the range of biomass will be used during ex-ante calculations. According to IPCC 2003, the value of R depends on aerial biomass (t / ha) for Eucalyptus/Pinus. For values less than 50 tonnes / ha 0.45/0.46 was used, for values between 50 and 150t/ha 0.35/0.32 was used and for over 150 0.2/0.23 was used respectively. During ex-post calculations, the value arising from the equation corresponding to Tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs" will be used as follows: $R_j = \frac{e^{(-1.085+0.9256 \times \ln b)}}{b}$ where b in the above-ground biomass calculated
Purpose of the data	N/A
Comments	Specific values will be calculated in the ex-post carbon estimations based on corresponding equation

Data / Parameter	$V_{TREE j p i}$
Data unit	m ³

Description	Stem volume of trees of species or group of species j in plot p in stratum i
Source of data	Local Growth Models: Growth projections from local growth model using local parameters from AF Group for same species and silvicultural activity in the project zone.
Value applied	N/A
Justification of choice of data or description of measurement methods and procedures applied	In all cases local data is used, based on projections generated by AF for farms under similar conditions to project area by species, using average projection values.
Purpose of the data	Value used to determine the project ex - ante carbon sequestration
Comments	In case of ex-ante calculation, growth was estimated based on average growth according to specific site conditions presented in the project site. Local growth models were used for ex-ante estimation to describe the yield curve and determine the Long Term Average of available carbon credits. Local growth models will not be used for ex-post estimation which were based on field measurements: tree's DBH and height.

Data / Parameter	Bark volume
Data unit	m ³ /ha
Description	Bark volume of trees of species j
Source of data	Methodological tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs" V.1 for Pinus. For Eucalyptus, a tendency line is calculated by AF group based on a local survey on diameter with and without bark in project zone.
Value applied	Pinus: 15% of total stem volume

	Eucalyptus: varies according to age with values of 24.15% during first year and 10.88% at year 18.
Justification of choice of data or description of measurement methods and procedures applied	<p>Default value is used in the case of Pinus. For Eucalyptus the procedure is detailed below:</p> <ol style="list-style-type: none"> 1) SAG software is used to calculate the volume of trees in a plot in different years (3, 6, 9, 12, 15 and 16), based on the growth simulation model of AF group project with same characteristics. 2) Volume with and without bark is provided as a result, bark percentage is calculated. 3) Results are copied into this worksheet sorted by age and plotted. 4) Tendency line is estimated (with the highest r^2) 5) According to the tendency line, bark percentage is inter and extrapolated until year 30 6) Both bark percentage is plotted using real and extrapolated values
Purpose of the data	Value used to determine the project ex - ante carbon sequestration and project emission capture
Comments	The bark volume is a variable used in the ex-ante calculation. During field measurement, the volume of trees is estimated with bark when diameters are measured over bark

Data / Parameter	$f_{MG,i}$
Data unit	Dimensionless
Description	Relative stock change factor for baseline management regime in stratum i of the areas of land.
Source of data	Table 6 of "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM Project" activities. V1.1.
Value applied	0.70
Justification of choice of data or description of measurement methods and procedures applied	Default value for Severely degraded grassland.

Purpose of the data	Calculation of project emissions
Comments	The ex-ante calculation for SOC change was modified in the verification, corrected by the modified total areas. Lands have been identified as degraded lands using the “Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities”.

Regarding data and parameters monitored, given the changes in total planted area, changes to the parameters are expected for each monitoring period, nevertheless, these changes are included below and the corresponding section 3.1.2:

Data / Parameter	A_i
Data unit	Ha
Description	Area of stratum i
Source of data	Monitoring of strata and stand boundaries was done using a Geographical Information System (GIS)
Description of measurement methods and procedures to be applied	Strata area were measured based on cartography documents, related with GIS.
Frequency of monitoring/recording	Every time the project boundaries are modified. when disturbances events take place, the project participants shall re-built the stratum and add the area of the project under disturbance in the GIS
Value monitored	Total area: 16,181.5 ha
Monitoring equipment	Garmin GPS, model eTrex Legend.
QA/QC procedures to be applied	N/A
Purpose of the data	Calculation of project emissions

Calculation method	The value was used in equations N° 3, 12 y 24 of the Methodological tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities” (Version 03.0.0), Equations N° 7 and 13 of the Methodological tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities” (Version 02.0.0)
Comments	N/A

Data / Parameter	DBH
Data unit	Cm
Description	Diameter at Breast Height of tree
Source of data	Field measurements
Description of measurement methods and procedures to be applied	DBH is measured at 1.3 m above ground, over the bark. In case of stem deformation at this level, measurement was done over the deformation once the stem took its normal shape, with the purpose of being conservative. DBH was measured in all trees within the plots.
Frequency of monitoring/recording	Every tree within sample plots
Value monitored	Varies with stratum
Monitoring equipment	In most of the cases, the instrument used for measuring DBH was a caliper model “Mantax Blue” of Haglof, Sweden. Also, for the minority of trees, it was used a diametric tape for measuring DBH.
QA/QC procedures to be applied	A quality control procedure consisted in qualified personnel conducting the measurements in the first place, and the first control is conducted by contractor. Secondly, a random control of 5% of the plots measured is made by AF personnel, using the same data collection sheet, where unsupported errors include:

	<ul style="list-style-type: none"> - a difference of more than 3% in the DBH measured with caliper <p>Instruments were checked and tested before starting the verification process. Items checked:</p> <ul style="list-style-type: none"> -Correct visualization if numbers in the calliper. -The straightness of the calliper and the lack of mechanical problems. <p>The calliper length is not a problem since it is impossible the equipment stretches.</p> <p>Bark that is not stick to the stem was removed before measuring.</p>
Purpose of the data	Calculation of project emissions.
Calculation method	<p>The trees are considered to be inside the plot if more than 50% of DBH is inside the plot.</p> <p>Diameters were measured by taking one measure, always pointing the instrument´s shaft in direction to the middle of the plot.</p> <p>Parameter used indirectly in Equation N° 1 of the Methodological tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities” (Version 03.0.0); for calculation of basal area and then volume..</p>
Comments	N/A

Data / Parameter	H
Data unit	m
Description	Height of trees within sample plot
Source of data	Field measurement

Description of measurement methods and procedures to be applied	<p>All trees within the plot in the case of permanent plots.</p> <p>In relation to the height measurement, the following considerations according to each situation take place:</p> <ol style="list-style-type: none"> 1. Trees with zero slope: To achieve a correct measurement, the operator must be located at a distance equivalent to the tree height. It is important to keep in mind that the distance taken with the tape measure is the one entered in the inclinometer. 2. Measurements with slope (positive or negative): In those cases where the tree base is located over the contractor's visual sight, the measurement and total height will be a result of the subtraction of the measurements. If the operator is over a hill, the height will be the sum of the measurements. 3. Trees that are dead, burned, or broken will be excluded from the measurement. <p>In order to always measure the heights from the same location and thus avoid bias or errors, height records must always be made in the same direction. For this, the face of the tree where the measurement took place will be marked and identified with paint</p>
Frequency of monitoring/recording	During every monitoring, for every plot within different stratum.
Value monitored	Varies according to tree classes in plot
Monitoring equipment	Haglöf ECII-D Electronic Clino/Height Meter
QA/QC procedures to be applied	<p>A quality control procedure consists in qualified personnel conducting the measurements in the first place, and the first control is conducted by a contractor. Secondly, a random control of 5% of the plots measured is made by AF personnel, using the same data collection sheet, where unsupported errors include:</p> <p>Height measurements will not be made on those days where the wind speed exceeds scale 5 of Beaufort (30-38 km / hr), causing a great movement of the trees top (NOAA, 2020).</p>

	<p>- In the same way as with the DAP record, the height values will be expressed in decimeters, avoiding errors in the register.</p> <p>When referring to this electronic device, it is recommended to check the correct visualization of the display. The clinometer was always kept in safe places in order to avoid display rupture. The equipment was always full charged batteries and back up batteries were always available in case of emergency. At the same time it must previously be calibrated before each daily measurement activity.</p> <p>Make control measurements using all involved equipment (human error should be minimized at minimum with well training and cross-checked control measurement activities).</p>
Purpose of the data	Calculation of project emissions.
Calculation method	<p>Once the plot is delimited and all trees to be included are defined, all tree heights are measured in permanent plots. According to the measurement description.</p> <p>In order to avoid over- and under-estimations, every tree was considered inside the plot when the mark of 9.77/12.62/15.95m (radius of a circular plot of 300/500/800m²) of the measuring plot overpassed the 50% of the diameter of every tree.</p>
Comments	Parameter used indirectly in Equation N° 1 of the Methodological tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities” (Version 03.0.0); for volume calculation.

Data / Parameter	Ap,i
Data unit	m ²
Description	Area of sampling plot
Source of data	Field measurement

Description of measurement methods and procedures to be applied	The center of the plot was marked with the assistance of a GPS. One staff member stayed at the center of the plot taking notes of the diameters and heights measured while the other expert of the team walked inside the plot measuring them. Both experts were always connected with a measuring tape, and every tree measured was previously checked in order to determine if the distance to the center was minor to 9.77/12.62/15.95 m (radius of a circular plot of 300/500/800m ²).
Frequency of monitoring/recording	Every plot measured in Forteko, 239 in total.
Value monitored	Varies with every plot
Monitoring equipment	N/A
QA/QC procedures to be applied	In order to avoid over and under-estimations, every tree was considered inside the plot when the mark of 12.62 m (and equivalent for Eucalyptus) overpassed the 50% of the diameter of every tree. A minimum of 15 trees must be included per plot, if this is not so, the contractor communicates with the forest manager to define action which may include increasing plot size.
Purpose of the data	Calculation of project emissions
Calculation method	500m ² = r ² (12.62).π (<i>Pinus</i>) 300m ² =r ² (9.77).π (<i>E.dunnii</i>) 800m ² = r ² (15.95).π (<i>E.grandis</i>)
Comments	Sample plots are permanent and circular. The plots were laid down in a shapefile, positioned systematically with a random start. The location of the plots within the forest plantation was done with a GPS. The area of each plot is not a variable but a fixed value, but must be measured by its radius in order to determine the variable "number of trees within the plot".

Baseline and additionality

The change of species for this project does not affect the project's additionality as the conclusions from the "Combined tool to identify the baseline scenario and demonstrate the additionality in A/R CDM project activities v. 0.1" are maintained. Specifically, when the barrier analysis of alternative baseline is revised (step 2 barrier analysis), there are no significant changes to alternative 2 if analyzed per paragraph (see further evidences in Appendix 1):

(1) Forest plantation with the characteristics applied by 'Forteko' is not a common practice in the region. In fact, this production system in terms of local tradition is not well known. This forestry activity in the NE region of Uruguay started to develop in the 1990's, initially in a very different way as compared to 'Forteko's case, as a result of the forest policy implemented in 1987. In comparison with cattle grazing (more than 300 years from its introduction) it is a new form of production. Therefore, knowledge and technology for its implementation is starting to be developed and diffused in the region. There is a noticeable difference between the return periods considered by livestock producing landowners -who are used to expect a yearly income from their production-, even with earlier forest producers, who had to expect for periods of 10 or more years for return on the investment. In addition, landowners in the region generally lack the capacity and equipment for conducting forestry activities.

No changes as the analysis is forestry vs. cattle breeding activities

(2) This alternative is also prevented by remoteness of land area, which imposes high transportation cost for wood products (developed in the investment analysis section). In terms of technology, the adoption of a 22 to 25 year rotation imposes uncertainties about wood productivity and quality; wind damages; and harvesting of thick logs, which are additional to other uncertainties applicable to shorter-rotation plantations (e.g., even longer terms for returns on investment and possible pest and disease outbreaks, among others).

No changes. Although since the project start date the forestry industry has grown in the country, this was focused on pulp wood industries, but in the region, hard wood products still present barriers related to remoteness. The project area is located 350 km, on average, from industries (both pulp and sawmills).

(3) There are uncertainties related to the productivity that can be reached, particularly considering that the soils in the project area are of lower quality than those soils in the North and West regions

in Uruguay where most long-rotation plantations have been developed. The only growth model in Uruguay available is for Eucalyptus plantations (INIA SAG-grandis and SAG-globulus), and no models for pine plantations are available. In addition, the mentioned Eucalyptus models were validated for rotations up to 16 years, and growth rates for ages higher than that had to be estimated with a large degree of uncertainty. Adopting a long rotation implies sticking to the same genotypes for long periods, thus missing the opportunity of capitalizing on progress through plant breeding, which would be achieved by more frequent replanting. Finally, the quality of the wood to be obtained (i.e., whether it would be suitable for the high-price market it is targeted for) is also subjected to uncertainty. The underlying assumption in the design of the project activity is that logs to be obtained at clear-cut harvest will be of a quality at least similar to that of logs that could be obtained in shorter rotations.

The area planted with *Eucalyptus* represents less than 12% of the project in the current monitoring period. The progressive replacement projected does not include a 100% replacement of pinus (see Appendix 1). Anyway, the rotation period expected for *Eucalyptus grandis* is 18-20 years, which means there were also no reliable growth models by the time. Understanding 18-20 year rotations to be long time for investment (as 22 years considered for pine plantations), same risks apply.

(4) Another uncertainty relates to an eventual increase in felling off or damage to trees by wind storms. Intensive thinning of pine plantations is known to increase the risk of wind damage due to the opening of wide spaces within the forest that may channel the wind and increase its speed, aggravated by the vulnerability of tall trees. There is no information on an eventual increase in this vulnerability in thinned stands with very tall trees such as those with ages 20 or more, but there have been some cases of plantations losses due to strong wind storms.

Applies both to Pinus and Eucalyptus species with similar age (18 and 22 years)

(5) Risk of erosion within the location area is moderate to high, with moderately steep slopes which could reach 30-40%, resulting in high vulnerability of soils. Besides, considering overgrazing history during summers in the region, this alternative is subject to uncertainty about wood productivity due to the degradation process suffered by soils in the project area which, as discussed in the section above about “assessment of applicability conditions”, have lost a fraction of their net primary productivity due to grazing, aggravated by the gully erosion process.

Applies both to Pinus and Eucalyptus species.

When additionality was analyzed in the validated PD, it concluded that only one baseline scenario was possible, and according to “Combined tool to identify the baseline scenario and demonstrate

additionality in A/R CDM project activities” that was enough proof and further steps included the common practice analysis. Still, an investment analysis was conducted to “*reinforce the conclusion that forest activity in the area was not meant to be developed without being registered in a carbon scheme and generating carbon certifies*”. In this sense, the results still apply today, where the IRR for the project with Eucalyptus species is still below a Benchmark IRR for the region (see Appendix 1 with detail information on variables and results).

Regarding the common practice analysis, it is stated in the PD that: “*Throughout the analysis it is concluded that there are similar forest activities (in terms of scale, species, etc) in the area. However, 94% of those companies established in the area are seeking carbon finance. There was no identification of similar forest activities without requiring carbon finance (paragraph 33 of the tool). Therefore, there is no need to compare the proposed project activities to others (paragraph 34 of the tool). In conclusion, similar activities cannot be observed, then the project activity is not the baseline scenario, and hence it is additional.*” This statement is not modified by the fact that Eucalyptus is replacing part of the pinus area. The additionality analysis is pertinent, with the same investment restrictions and activity uniqueness.

It can be concluded that all the deviations previously mentioned do not impact additionality, nor the appropriateness of the baseline scenario.

In conclusion, all the deviations previously mentioned do not impact neither the applicability of the methodology and/or additionality, nor the appropriateness of the baseline scenario. The changes are expected from a change in authorities and financial sustainability of the project which provide an explanation for the outcome.

2.2.6 Grouped Projects (VCS, 3.6; CCB, G1.13-G1.15, G4.1)

Not applicable as this is not a grouped project

2.2.7 Risks to the Project (CCB, G1.10)

Identified Risk	Potential impact of risk on climate, community and/or biodiversity benefits	Actions needed and designed to mitigate the risk
Fire	The risk of fires in commercial forest plantations in Uruguay is very low due to reduced population density and a very humid climate. Normally forest fires in Uruguay only occur in summer in the coastal areas of the South and Southeast	In compliance with national regulations, BDU has implemented an extensive plan to prevent forest fires. There are many preventive activities such as: i) establishment of a network of firebreaks

	<p>of the country, associated with the tourism activity. In spite of prevention activities, fires can happen. In that case, equipment and staff (owned and contracted) is ready and trained for firefighting.</p>	<p>surrounding forests blocks with an area not larger than 50 ha; ii) the introduction of cattle in early stages of the forestation for maintaining pastures short and green, thus reducing the volumes of fuel; iii) permanent surveillance of the project area, particularly at times of medium to high risk of fire; iv) burning as possible technique for cleaning fields is particularly excluded; v) warning signs with risk of fire are placed next to forest sites; vi) transit of non-authorized hunters, hikers or campers is forbidden; vii) fire extinguishers must set in vehicles (including tractors) that circulate in the property; viii) the project has fire insurance hired</p>
Diseases and insects	<p>With a low to intermediate possibility of occurrence, there could be diseases and insects that may damage the planted trees, but the diseases and insects will be prevented by routine oversight.</p>	<p>Upon routine oversight, the diseases will be treated according to the Weeds and Insects Control Plan, immediately with biological control once occurred. The chemical pesticides are allowed to be used only if there is a serious pest problem erupted in the project area, and the pesticides will be used in accordance with the National Pesticides Policy and FSC standard.</p> <p>Given forestry sanitation is considered to need a national scale solution among producers, AF channels its efforts through the Health Commission of the Society of Forest Producers (CS-SPF), participating actively. The CS-SPF establishes a short and medium-term work plan, which includes lines of work in aspects of monitoring, control, investigation and training / dissemination for pests considered priority. In turn, forest health issues at the national level are coordinated by</p>

		<p>the CECOPE (Executive Council for the Coordination of Pests and Diseases forestry) made up of representatives of the MGAP through the General Forestry Directorate and the General Directorate of Agricultural Services, INIA and SPF.</p>
Wind	<p>Although it has a very low probability of occurrence, and affects mainly young individuals, another risk is related to an eventual increase in felling off or damage to trees by wind storms. Intensive thinning of eucalypt plantations is known to increase the risk of wind damages due to the opening of wide spaces within the forest that may channel the wind and increase its speed, aggravated by the vulnerability of tall trees. There is no information on an eventual increase in this vulnerability in thinned stands with very tall trees such as those with ages 15 or more, but there have been some cases of plantations losses due to strong wind storms.</p>	<p>High density initial plantation. Thinned density never below 150 trees per hectare.</p> <p>Also the use of climate insurance in critical moments, geographic diversification and last, avoidance of critical activities during periods of expected adverse meteorological conditions.</p>
Frost	<p>Night frosts occur during the winter (from mid-May to early October), with an average of 30 days with frost per year, with temperatures seldom falling below - 5 °C.</p>	<p>Those areas imposing restrictions to tree growth or with high vulnerability to frost were excluded; soils occupying low areas were excluded because of risk of frost. E. dunnii were planted in lower areas to prevent frost damage.</p>
Soil and water contamination	<p>Low significance impacts to water sources contamination was found from the EIA to the properties due to agrochemicals use.</p>	<p>Operative procedures in place to assure a correct use of agrochemicals avoiding all risk of contamination and leak to water and soil. Water physicochemical analysis is conducted and phreatic levels are measured.</p>
Natural and artificial habitats affected	<p>Low significance impacts to natural habitat were identified during the EIA to the properties due to the activities taking place during plantation growth and harvest.</p>	<p>Plantations take place on degraded grasslands and high value conservation areas and areas of particular interest for conservation are identified, protected and monitored. Moreover, in plantation areas, environmental monitoring takes place during and after</p>

Social	Positive impacts due to development projects implemented as part of the project as well as training and employment opportunities. Still, the activity may lead to some community disconformities such as an increase in rural road traffic or noises during harvest.	harvest, determining all aspects to take place in future activities. Project proponent has an active communication strategy to allow communities to be aware of future activities and means for non-conformity communications and adaptive management plans.
--------	--	--

2.2.8 Benefit Permanence (CCB, G1.11)

As it was mentioned above, Forteko project has a number of socio-economic benefits that have mostly impacted its surrounding area, which is currently one of the less developed ones in the country. This project has decentralized economic activity creating a development pole away from Montevideo, and other areas currently concentrating most of the economic activity in the country.

The creation of employment is one of the main social benefits of the project. Typically, an extensive livestock production system employs 6 persons every 1,000 ha²³ while the total number of direct and indirect employees per hectare in forestry is 32 employees every 1000 hectares, according to a study by CPA Ferrere²⁴ done in 2017.

Beyond an increased number of jobs, the project is contributing to the development of the region and the country pursuant the priorities defined by Uruguayan government (promotion of small family businesses, increase in exports, eradication of rural poverty, incorporation of technology, increased nationally added value, development of new productive chains and geographic decentralization of development) as follows. Forteko project activity is generating new job opportunities. The vast majority of employees are hired by contractors. The majority of the outsourced contractor companies currently working with BDU, are registered in Uruguay as “PYMES” (small and medium sized companies), mostly family companies hiring local workers. Moreover, all the skills and trainings that direct workers and local contractors will learn during project lifetime, will help these workers to continue working in the forestry sector and in the project region. The project has created directly and indirectly, 1644 job positions. During this monitoring period this positions are related to forest management activities such as forest inventories, pest controls, and pruning among others related to the forest industry in the area.

The project incorporates the best available and affordable technology for optimizing wood productivity and quality through the selection of seeds, site preparation, plantation, weed and pest control, forest management and wood harvesting and logistics, and achieving sustainability

²³ http://www.camaramercantil.com.uy/uploads/cms_news_docs/Informe%20Impacto%20Cadena%20Forestal%20CPA%20Ferrere%2022-11-17.pdf

²⁴ CPA Ferrer website: <https://www.cpaFerrere.com/en/>

objectives. BDU has a program for applied research, continuously testing various practices in order to achieve continuous improvement over time including studies aiming for climate change adaptation. It also collaborates with other companies (within the *Sociedad de Productores Forestales*) and public institutions in this regard, studying economic forestry impacts in the region, biodiversity monitoring in forestry sector, soil impacts, among others²⁵.

In terms of biodiversity, the fields where Agroempresa Forestal (AF) operates, environmental assessments and impact surveys are carried out by a team of experts and communicated to communities in order to define mitigation actions. Based on the results obtained in these studies and consultation processes, management and monitoring plans have been developed for the restoration of natural systems which may have been affected by previous practices (agricultural, farming, forestry or other activities), the conservation of natural resources and values in the influence areas (flora, fauna, soils and hydric resources) and the prevention or mitigation of environmental impact caused by forestry operations.

Monitoring tasks include, in particular, regular assessments of the effects of forestry operations on the soil, water, pollution, ecosystems, as well as Areas of Particular Interest for Conservation (APIC) impacts. In this line, studies of the fauna are carried out with the purpose of determining the effect of these operations in the species composition and distribution in the area and the possibility of controlling invasive species -such as the wild boar-.

In summary, among the measures needed and taken to maintain and enhance the climate, community and biodiversity benefits beyond the project lifetime, are:

- Species selected (Eucalyptus and Pinus) have previously proven to be adapted to the agro-ecological conditions of the project zone.
- Once the forest is harvested, replanting will be performed between existing lines, being the common practice in long rotation forests aiming to produce high quality wood.
- In order to keep production at same levels throughout project lifetime, it will be necessary to fertilize new seedlings with every new plantation.
- All establishments within project area are privately owned by the fund and no ongoing enforcement or disputes have been raised in the past and until now, relating to the protection of the planting area. In addition, the farms are demarcated by fences, and are correctly marked as private land. This limits external risks that could hinder the continuation of the forest when the project is over.
- The financial profitability produced by the project is very likely to get the project owner to extend the project, to continue management practices that protect the credited carbon stocks beyond the length of the project crediting period (100 years).
- In the project area, soil productivity is relatively low, and production of grass is reduced compared to other soils in Uruguay. These soils are categorized, by Law, as “Forest priority Soils”. Therefore the best production activity to implement over these soils is forestry. The

²⁵ Studies available at: <https://www.spf.com.uy/trabajos-de-investigacion/>

only other production activity that can be done over these soils is extensive livestock production which, as shown in other sections of this report, forestry is by far the best option.

- Protected areas inside the project area are better preserved than prior to the Project implementation, so it is expected that after project lifetime, these areas will be of much higher interest to communities and stakeholders.
- GHG ERRs will continue beyond the lifetime of the project and probably sequestered carbon stocks will be higher than the ones presented in this report, mainly because future genetics improvements and improved planting/silvicultural technologies.
- Regarding biodiversity, all the protected areas that today are part of this project will have richer and better-known biodiversity after lifetime of the project.

2.3 Stakeholder Engagement & Safeguards

2.3.1 Stakeholder Identification (VCS, 3.18, 3.19; CCB, G1.5)

The stakeholders are periodically updated by means of direct contact with institutions especially political positions and education, health and security institutions contacts, as well as through snowball method, requesting the participation of other stakeholders to identify possible new or updated interested parties as described in the steps below:

A. Annual Survey where each actor is contacted by phone to verify:

- Name, position, or role.
- Institution/organization.
- Phone number and email address.
- Confirmation of continued presence in the UM's area of influence.

B. Second Review with Field Supervisors

- The updated list is sent to each supervisor for verification.
- Supervisors validate the data, correct errors, and report any changes detected.
- They make in-person visits in case of doubts or if the person cannot be located by telephone.

C. Incorporation based on Support Requests

- During the year, support requests submitted via the form are reviewed by the Relationship Department.
- The actors involved in these requests are added to the list.

D. Identification in the implementation of AF Programs

- In interviews, community programs, and projects, individuals, groups, or institutions that have not been previously registered are identified.
- These actors are incorporated as strategic stakeholders or those affected by the MU.

2.3.2 Stakeholder Access to Project Documents (VCS, 3.18, 3.19; CCB, G3.1)

The CCB-VCS Project Documents will be published in the VERRA website for public comments, as well as a project summary in Spanish version. Moreover, local communities and other stakeholders can easily access it from the website. Both the full project documentation for the Trust Fund and the project's summary in Spanish is published on BDU III website for public review and comments²⁶. Monitoring reports are also published online for all stakeholders to access, and presented summarized to communities during training²⁷.

Regarding internet access, Uruguay has 91% of households –on average- with access to internet and is the only Latin America country who has secured one laptop per child and teacher in all public schools of the country. There are difference among household income, where 88% of lower income households (Quintil 1) have internet access while high income households' (Quintil 5) internet connection reach 97%. Since 2010 to 2022 the gap between high and low income households' internet connection in the country went from 66% to 9%, being technology access one of the countries' main objectives towards equality (EUTIC, 2022²⁸). Moreover, in the project zone there are present the "MEC centers". These are public training centers for, among others, IT technology and providing infrastructure for public access to internet, the same as public schools, where internet access is free²⁹.

Given access to internet may still be limited within local communities, the project is also presented to the community during FSC and CCB-VCS validation and verification. Given its FSC certification, public summary reports of the mentioned certification are also available to public access. Other instances include local newspaper interviews, news programs and events where the main objective of the forestry activity are detailed³⁰.

²⁶ All online documentation available for investors and stakeholders available at: <https://www.bosquesdeluruguay.com/bdu-ii/> & <http://www.bosquesdeluruguay.com/media/2022/03/Prospecto-de-Emission-BDU-2.pdf>

²⁷ Evidence available for VVB during verification in shared folder under "Communication"

²⁸ EUTIC is a statistical analysis related to the use of information technology and communications in the country.

²⁹ Recently, Uruguay government has limited the access to public information to URL located with the countries boundary, for these reason it is difficult to access statistic information, Still total list of centers including those within project zone available at: <https://www.gub.uy/ministerio-educacion-cultura/listado-de-centros>; and EUTIC statistics pdf available at: <https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/sites/agencia-gobierno-electronico-sociedad-informacion-conocimiento/files/2020-09/Informe%20EUTIC%2009%202020.pdf>

³⁰ Available to VVB during verification in shared folder "Communication"

2.3.3 Dissemination of Summary Project Documents (VCS, 3.18, 3.19; CCB, G3.1)

Along with the project's listing, the project summary documentation has been published on VCS and CCB website for all stakeholders, so that they can obtain the detailed project information and development progress. This include an updated summary of the MR that will be published for 30 days before verification.

Also, a summary of project description and monitoring in local language is communicated to local communities through presentations in face-to-face meetings during verification and FSC certification. Moreover, it is also available in BDU's webpage together with specific certification information. These include both, PD and MR summary reports, for public access, together with specific brochures describing the project characteristics and benefits. Moreover, FSC certification summaries are also publicly available on the web. At the same time, during annual surveys, project information is also provided.

So, project documents' information is shared through constant communication with communities through BDU's webpage, social media and face-to-face done by BDU's employees in the area as well as presentations to different stakeholders. Moreover, WhatsApp groups have been created with community authorities in order to provide information regarding activities that may impact communities and printed letters are delivered to neighbors to anticipate activities as well.

Moreover, continued improvement is sought in terms of communication barriers that can be identified throughout the crediting period. In this line project's policy, certified activities and briefings are shared through social media and e-mail to target specific stakeholders such as community's referents and authorities as well as neighbors in the project zone (evidence available to VVB).

2.3.4 Informational Meetings with Stakeholders (VCS, 3.18, 3.19; CCB, G3.1)

BDU has been having an active presence in the project area, communicating with the community through meetings organized at rural schools, mayor office, with community groups such as Forestry association, as well as cattle breeders in the farms, among others. These events are publicized using local media, direct contact information (telephone, WhatsApp, email) or informed during face-to-face interviews. In this line, a workshop with all contractors was conducted where all project information was shared during a presentation³¹.

The project proponent has considered that the best way to approach the community is not through massive public consultations but different bilateral interactions on specific subjects. Moreover, staff have local residency and tasks so there is constant presence of the project within the community. So massive public consultations are currently replaced with face-to-face meetings, engagements, community activities, training and presentations, among others. Some of the actions taken includes the visit -or digital contact-, once a year or as demanded, of BDU employees to

³¹ Presentation available to VVB during verification in shared folder "Communication".

neighbors living close to the project area and other stakeholders within the project zone. During these visits, after BDU employees explain the process, self-conducted interviews are completed with the form shown in Figure 3, where information on areas considered of HCV is collected from the interviewed, or project's impact; while contact information of the organization and future meetings is provided. Also, during these visits, stakeholders can complete the "complaints and claims section" to inform discomfort over actions implemented by the project (the complaints and claims are resolved based on specific resolution procedures³², and active throughout the year).

The information collected is later processed and recorded by a third party and published in the annual monitoring report available online at BDU website.


 AF ADMINISTRACIÓN FORESTAL		FORMULARIO DE VISITA A VECINOS	
FECHA DE VISITA		/ /	
PRECIO DE AF S.A. (EN ZONA DE INFLUENCIA)			
NOMBRE Y APELLIDO DEL ENTREVISTADO			
NOMBRE DEL ESTABLECIMIENTO/ INSTITUCIÓN/ COMERCIO			
DIRECCIÓN / UBICACIÓN			
LOCALIDAD / DEPARTAMENTO			
TELÉFONO/S DE CONTACTO			
DIRECCIÓN DE E-MAIL			
CONSIDERA UD. IMPORTANTE LA CONSERVACIÓN DE ÁREAS NATURALES Y/O ELEMENTOS DE VALOR PATRIMONIAL (HISTÓRICOS O CULTURALES)?			
¿CONOCE UD. EN LOS PRECIOS DE LA EMPRESA EN LA ZONA, ALGÚN LUGAR O ELEMENTO DE ESPECIAL INTERÉS PARA SU CONSERVACIÓN?			
QUIERE UD. REALIZAR ALGUNA SUGERENCIA, OBSERVACIÓN, COMENTARIO O RECLAMO?			
Información complementaria			
Se entregan datos de contacto de AF S.A.?		SI	NO
Se entrega información de presentación de AF S.A.?		SI	NO
ENTREVISTADO (FIRMA Y ACLARACIÓN)		ENTREVISTADOR (FIRMA Y ACLARACIÓN)	

Figure 3. Visit form to be completed annually by project neighbours.

³² Available for VVB during verification in shared folder "Communication"

2.3.5 Risks from the Project and No Net Harm (VCS, 3.18, 3.19)

The risks and commensurate mitigation or preventative measure(s) in place to prevent or mitigate the identified risks during the monitoring period are included in section 2.2.7 and the Project Risks Table in Appendix 2.

2.3.6 Community Costs, Risks, and Benefits (CCB, G3.2)

As it is described in the validated PD, local communities in Uruguay are not entirely depending on forest, they reside in populated centers with different businesses. Communities are not asked to participate directly with the project. Projects' potential risks, costs and benefits are, for example, indirectly transmitted to communities through the increase of labor demand for particular activities (forest implantation), and also through ecosystem services protection (e.g. erosion control). In other words, communities can perceive project costs, risks and benefits in an indirect way, through market.

Only cattle breeders and beekeepers community groups are invited to use the area. The company offers grazing to neighbors or previous owners who own cattle with the aim of reducing the amount of fuel in firebreak areas and therefore the risk of fires. In addition, grazing is a way of integrating local livestock producers into the project and involving them in firefighting in the area as well. These and other risks and benefits are discussed with cattle breeders before formalizing their participation. The activity is controlled by contracts ranging from 1 to 11 months and renewed on expiry³³. The conditions under which grazing takes place is recorded in each grazing contract, including information on number of animals/ha allowed, area within the farm, responsibilities of each party. During environmental assessments, the areas where cattle raising is allowed is defined, as well as the need to limit domestic animal presence related to cattle breeding culture. Moreover, communications regarding fire mitigation are presented to the community group.

The inclusion of beehives is authorized as a means of promoting the production of non-timber forest products from forests. The beekeepers are generally local. The activity is controlled by contracts ranging from 3 to 6 months, where conditions are detailed prior meeting among parties.

Different formal and informal meetings take place with the community, and other stakeholders, throughout the projects lifetime in order to present the project's risk and benefits analysis. In particular, a public consultation took place in December 2019 during the FSC validation where the evaluation was presented before a wide group of stakeholders³⁴, who were also asked for their views on the forest management issues that were considered relevant as well. Other informal meeting, where cost, risk and benefits are presented include, as mentioned in section 2.3.4, meetings organized at rural schools, mayor office, with community groups such as Forestry association, as well as cattle breeders in the farms, among others, to further present the

³³ Contracts shared in shared folder "Stakeholders"

³⁴ Evidence available for VVB during validation and verification in shared folder "FSC"

company's policies and project details, including forest activity risks and benefits (see reference from corresponding section).

Regarding direct and indirect workers, training is provided at the beginning of the activities in order to present the company's policies, FSC principles (including project's benefits) and work risks³⁵.

2.3.7 Information to Stakeholder on Verification Process (VCS, 3.18.6, 3.19; CCB, G3.3)

National legislation in Uruguay does not obligate forestry project owners with activity in the VCS or CCB Standard to communicate about the validation or verification process to any stakeholders, not even to national or regional governments.

However, the company decides to actively communicate about this process, so any stakeholder can be informed and participate during the process. In this line, the description of the verification process will be informed in detail to all staff members of the company through internal communication as during previous verifications and a presentation of the process (including visit schedules, and organizing meeting with the VVB and related staff).

In the case of the community in the project zone, community leaders and/or authorities are provided with detailed information on the process through direct communications, including the subject in the communities' agenda.

2.3.8 Site Visit Information and Opportunities to Communicate with Auditor (VCS, 3.18.6, 3.19; CCB, G3.3)

Prior to the verification process, stakeholders are informed with due anticipation prior to the date of verification, of the audit process, stating procedure and are personally invited (through the most used contact mean) to participate through one on one, and group interviews with the verification team. As soon as the audit plan has been settled, the project owner will arrange a stakeholder meeting with the auditor during the site visit. Invitation will be done using appropriate means of communication, all the stakeholders will be informed via phone, mail or WhatsApp regarding the project process and the auditor's visit. Stakeholders identified in section 2.3.1 will be contacted and specifically invited if selected by the VVB.

2.3.9 Stakeholder Consultation (VCS, 3.18; CCB, G3.4)

Ongoing consultation

The project was first implemented by Cambium Forestal Uruguay SA in 2007. It must be noted that all the forestry plantations

³⁵ List of training areas, training participation and timetables available for VVB during verification in shared folder "Training"

were done based on the National Forestry (Law No. 15.939 of December, 1987). Forteko forest plantations are done entirely on private land. An Environmental Impact Assessment is requested by public authorities before establishing the forest for those projects affecting more than 100ha³⁶. These EIA's were presented in the DINAMA web page. Any person, company or entity from the project area or not, had the opportunity to comment and influence the project design. All the plots submitted for environmental approval have been classified as category A, therefore, their negative environmental impacts are considered non-significant by the national regulations. Anyway, all the planted areas must meet local regulations on maximum size of plantations, distance to water streams, neighbors' fences, power lines, etc. established by national regulation (public sector's stakeholder).

In the case of previous owners, Cambium Forestal Uruguay SA, being FSC certified as well, all the certification requirements were met, including a stakeholder consultation. At first, although regular stakeholder consultations took place, there was no documentation of these. In 2009 after an FSC negative evaluation of these, Cambium developed a spreadsheet of public consultation in which supervisors would report all findings during these events (according to the FSC Public Summary Report 2009³⁷).

Cambium Forestal also had a Social Management Plan in place which included procedure 7.8: claims, consultation and request management. The company registered them all in electronic spreadsheets where each farm supervisor could update information on each comment situation and mitigation plan implemented.

Since the beginning of 2015, AF has in place a mechanism for on-going communication with local stakeholders and implemented with the Forteko project once owned. The mechanism consists in local communities' surveys to identify their perception of forestry activity' negative impacts and to analyze the actions to be taken to mitigate these impacts. To implement the surveys', AF personnel organize talks at schools project' lands and invite the community to assist and to ask questions on forestry activities and its impacts in the region. The assistants receive the survey asking about the social, economic and environmental impacts they perceive. At the end of the talk,

³⁶ Environmental and forestry approvals available for VVB

³⁷ Available at: <https://fsc.secure.force.com/servlet/servlet.FileDownload?file=00P40000003dlnuEAE>

	<p>the surveys are collected and later analyzed to establish a negative impact mitigation action plan.</p> <p>The annual survey conducted, previously by AF but is now conducted by third party, and asks about the social, economic and environmental impacts they perceive. At the end of the talk, the surveys are collected and later analyzed to establish a negative impact mitigation action plan as well as other comments, such as non-conformities.</p> <p>Still, AF personnel organize talks at schools within the project zone and invite the community to assist and to ask questions on forestry activities and its impacts in the region³⁸. Moreover, different meetings are conducted within the “Comunidad mas cerca” program where development projects to be implemented, or other community needs are identified.</p> <p>Last, the summary monitoring report in Spanish are accessible to stakeholders both digitally, in VERRA and BDU webpage, as well as communicated during training, presentations and one-on-one meetings with community’s referents.</p>
Date(s) of stakeholder consultation	<p>16-November-2023 is the date a presentation and consultation took place regarding the annual meeting on community participation³⁹.</p> <p>11, 13 & 19-March-2025 are the dates a meeting and presentations with all contractors took place.</p> <p>This dates are among other presentations and communication with communities.</p>
Communication of monitored results	<p>Last, the summary monitoring report in Spanish are accessible to stakeholders both digitally, in VERRA and BDU webpage, as well as communicated during training, presentations and one-on-one meetings with community’s referents.</p>
Consultation records	<p>The survey’s results area analyzed by the Relation with Communities area of AF. This data is systematized in the social monitoring plan, and reported in the annual project’s report for the whole Trust Fund.</p>
Stakeholder input	<p>Stakeholder’s input are received both through the annual survey as well as the non-conformities communicated directly to AF’s employees or within the contact information.</p>

³⁸ Presentations available to VVB during verification in shared folder “Communication” and “Community impacts”

³⁹ Presentations available to VVB in shared folder “Communication”

	<p>These are then taken into consideration and implemented within the adaptive forest management.</p> <p>In the case of non-conformities, non has been received during the monitoring period.</p>
--	---

2.3.10 Continued Consultation and Adaptive Management (VCS, 3.18; CCB, G3.4)

As already shown in the previous sections, there are permanently open channels to communicate with the project developer.

The mechanism consists in local communities' surveys to identify their perception of forestry activity's negative impacts and to analyze the actions to be taken to mitigate these impacts. To implement the surveys', AF has hired a third party (since 2023), and later analyze the results and adapts the forest management and community programs accordingly. Surveys are conducted systematically to stakeholders within the project zone and other interested stakeholders. These used to be self-administered surveys which takes place on paper or digital: paper in the case of neighbors, digital for the case of other stakeholders such as contractors or other, but now are also conducted through telephone. The evaluation includes questions regarding the impact of forestry activity (environmental, economic, social and cultural). An annual report is drawn up on the basis of the information.

Moreover, personnel organize talks at schools or other institutions in the project zone and invite the community to assist and to make questions on forestry activities and its impacts in the region as well as identifying needs and possible development programs to be designed.

The registration of complaints from the Forteko project' neighbors, contractors, etc. is also used as an on-going communication system with local stakeholders. The External Adviser in charge of AF Management System is in charge of registering the complaints in the corresponding form. Once a complaint is registered, its treatment and deadlines are defined and the complainant is notified about the treatment that will be given. Once the treatment is finished, the complainant is consulted about his satisfaction with the result. If he agrees with the result, the complaint is closed. Otherwise, the procedure is repeated until the complainant is satisfied^{40,41}.

Furthermore, as described in the FSC Certification Report, AF has in place since 2015 the "Procedure to solve social and/or illegal activities conflicts or complaints". This procedure applies to any social complaint including lands' right of use. No complaints for disputes were received in the public consultations.

⁴⁰ The surveys and complaints mechanisms are established in Chapter 11 (Monitoring System) of BDU' Forestry Management Plan – Public Summary available to VVB during verification in shared folder "Forest management".

⁴¹ The AF schools' talks programme, the survey form, the surveys analysis and BDU social monitoring plan and registries for the VVB at verification in shared folder "Communication"

As mentioned, stakeholders can raise their comments or suggestions in the “Neighbors visit form” and the “complaints and claims form”. The project owner will check the forms regularly and collect all the comments received.

Summary of comments received	Actions taken
Donations requested	Donations approved and provided
Development programs identified	Programs presented to corresponding area for validation, design and implementation
CCB Public comment period (26.09.25 to 26.10.25)	
Theoretical carbon credit project. Should be reconsidered. Is it fair the carbon credits have been back-dated to 2007?	<p>There is no theoretical concept for the project as the carbon removals are occurring as verified in each period. Moreover, the LTA has been calculated based on monitoring plan in place, in line with standard applicability conditions for AFOLU projects.</p> <p>The project was first registered within 5 years from the start date, in line with standard version 3, so 2007 carbon credits were verified and emitted during the first verification for monitoring period 2007-2013.</p> <p>Regarding CCB label, carbon credits have not been back.-dated to 2007, only those for period 2013-2021 at the moment of registration were verified, with the corresponding evidence for additionality and monitoring results regarding climate, community and biodiversity benefits.</p>

2.3.11 Stakeholder Consultation Channels (CCB, G3.5)

The project proponent has considered that the best way to approach the community is not through massive public consultations but different bilateral interactions on specific subjects. Part of the communication procedures with communities consist in verbal communication from the company’s workers towards them. AF workers are permanently present in the project area and they communicate with communities and stakeholders. AF has been present in the area for almost 10 years now, and since it is an FSC certified activity, an important part of the company’s activities

involve working together with the community, identifying mitigation actions, providing solutions to their needs and answer to their comments. In this sense, contact data of the referenced authority for the project's area are publicly available in the properties. And, as previously mentioned, systematic community rating of the company's activity impact is analyzed and evidenced in reference.

The Trust Fund web page contains a special section for comments and includes all the information regarding each project, and is annually updated with its monitor reports which include different indicators, including the analysis of the information from the neighbour's survey forms. Moreover, all communications and claims are to be reported to the manager within 10 days and a meeting is scheduled within 30 days.

Last, AF has also implemented a mechanism to mitigate complaints. It consists in analyzing the impact of future actions that will be taken by the project proponent. For example, harvesting of a certain area will increase truck circulation in a public road, generating modifications to the regular activity of the zone. AF staff anticipates this situation visiting the neighbours that could be affected, explaining the activities that will be implemented and leaving a contact telephone to contact them in case of need, followed by different mitigation measures to reduce negative impacts.

2.3.12 Stakeholder Participation in Decision-Making and Implementation (VCS, 3.18, 3.19; CCB, G3.6)

The Trust Fund has open channels to enable the effective participation of all communities. The "complaint form" and "visit to neighbour form" (see chapter 2.3.4) is a way of communicating to communities and community groups. These channels are open to any culture and gender. Stakeholder identification is based on the level of relation to the project so no discrimination in terms of culture or gender is done.

Most of the information is accessible only, nevertheless, taking into consideration the capacity to access or use electronic devices, for example, printed options are always available at the time of conducting surveys and communicate. Also, when AF conducts trainings and presentations at rural schools, regarding endemic diseases -or other requested subjects-, or during community work activities such as painting a school, employees are trained to receive comments and formalize requests/claims.

Moreover, AF has been granted the "Best place to work" award both general and for women, showing its commitment towards gender equality. In 2022, AF was ranked 16th among the best companies in Uruguay for women to work at⁴², and in 2024, it was also recognized by Great Place to Work® as 77% of employees reported that this is an excellent place to work⁴³.

⁴² <https://www.greatplacetowork.com.uy/listas/los-mejores-lugares-para-trabajar-para-mujeres-en-uruguay/2022>

⁴³ <https://certificaciones.greatplacetowork.com.uy/agroempresa-forestal>

2.3.13 Anti-Discrimination Assurance (VCS, 3.19; CCB, G3.7)

The project owner should obey Labor Law of the República Oriental del Uruguay with anti-discrimination assurance.

According to International Labour Convention (ILC) 190, “Each Member shall adopt laws and policies which guarantee the right to equality and non-discrimination in employment and occupation, including women as well as men workers (...)”

National Law No 15903 states, in Article 289, that “violations of international labour conventions, laws, decrees, resolutions, awards and collective agreements, whose control corresponds to the General Inspectorate of Labour and Social Security (IGTSS) are punishable by reprimand, fine or closure of the establishment”.

Article 6 of Decree 186/004 states as very serious offences “actions or omissions involving discrimination in working conditions on grounds of sex, nationality, marital status, race, social status, political and religious beliefs and membership or non-membership of trade unions” and states in Article 13 that “very serious offences are punishable in their minimum degree with a fine of 100 to 110 day’s wages; at the medium level, from one hundred and eleven to one hundred and twenty-five daily wages, and at a maximum level, from one hundred and twenty-six to one hundred and fifty daily wages, for each worker affected”.

Lay No 17.817 also declares the fight against racism, xenophobia and all other forms of discrimination to be of national interest.

AF has an Operating Framework Guide where it is clearly explained in chapter 1: Code of Ethics and Conduct⁴⁴ that discrimination attitudes are totally forbidden. The organization’s Code of Ethics contains provisions that shall apply to:

- (a) Members of the Board of Directors, Board Committees and other corporate governance bodies of the Company;
- b) The Senior Management of the Company;
- c) All other employees of the Company ("the Employees");
- e) Employees of subcontractors, other contracted persons and employees of the Company's suppliers and contractors (collectively, "the Value Chain"), whether providing services on the Company's premises or on premises and sites under the Company's management.

This document recognizes that, in most cases, the "ought to be" is clear, whether or not it is embodied in a code. Therefore, this Code is not exhaustive and Directors, Senior Management and

⁴⁴ Chapter 1: Code of Ethics and Conduct available to VVB during verification

Employees and those in the Value Chain are expected to act honestly and ethically in all matters relating to the Company's operations.

In situations not foreseen, the case should be brought to the Board for resolution, in accordance with sound management judgment and pre-established protocols.

It clearly states that discrimination attitudes are totally forbidden: “(...) are careful to avoid discriminatory behaviour of any kind (sexual, racial, generational, etc.), while at the same time committing all its members to promote fairness in the workplace, as well as in the professional development opportunities, job training and work tools available to each member of the team.”

These is communicated during general training to all direct and indirect workers, during the “Security plan and organization´s policy” module.

2.3.14 Grievances (VCS, 3.18.4; CCB, G3.8)

Grievances received	Resolution and outcome
The regrowth of a tree was blocking sun light from a neighbour´s solar panel	<p>9/6/2023: Grievance received</p> <p>12/6/2023: Harvest team coordination for tree harvest</p> <p>20/06/2023: Communication with neighbor to proceed with tree harvest</p> <p>27/06/2023: Tree harvested</p> <p>Neighbor shows conformity and grievance resolution is registered in the redress procedure system.</p>
A neighbor indicated that personnel from the contractor, were dumping chemicals into the water.	<p>10/4/2024: Grievance received</p> <p>The contractor and his employees were interviewed. The confusion resolved⁴⁵. The neighbor was notified of what happened and told that the contractor's personnel are not allowed to draw water from that location. Water will be drawn from sources located within the property. Grievance resolved</p>

2.3.15 Worker Training (VCS, 3.19; CCB, G3.9)

The project owner and group of experts provide technical advice and technical training to project staff and personnel from forest contractors companies (these last when the contractor has no

⁴⁵ The contractor indicated that they were collecting water, which is used to dilute the (water-based) paint used for marking, and that at no time were they washing the trash cans or throwing away paint. The confusion was probably caused by seeing the trash cans covered in paint.

capacity to manage it itself). These companies usually contract people from the surrounding areas, belonging to the neighboring communities to the project area.

All the workers related to the project must be trained in order to perform the activities with adherence to the Principles & Criteria of the Forest Stewardship Council ® (FSC ®) for forest management and chain of custody. Both direct employees and contractors working in Forteko project are included. The company's "Annual Capacitation Plan" includes the following training courses, among others:

- Induction for new contractors: Orientation and training activities to inform and establish the AF-BDU management guidelines to those responsible for the contractor companies and their health and safety services
- AF Security and General Policy: AF-BDU Management Policy; Continuous improvement; FSC Principles & Criteria; Occupational Health and Safety; Care of the environment; Social Responsibility, Labour Rights and Duties.
- Security commission: safety and continuous improvement
- Health and First Aid
- Investigation of incidents contractors supervisors
- Procedures during emergencies
- Risks
- FSC Principles and criteria
- Fire control

Every training is recorded in a template, with information about the topic, date, responsibility, etc. The Annual Training Plan and the complete list of trained people in the different topics (biodiversity, FSC, etc.), in the last years, will be available for the VVB if necessary.

Direct AF-BDU employees are also trained in other topics. The following is a list of the courses taken by personnel of different areas⁴⁶:

- Communication skills
- English as a second language

⁴⁶ Complete capacitation plan available for VVB during verification in shared folder "Training"

- Leadership
- Negotiation

The capacity will not be lost as, first, training is implemented in an annual basis, and secondly, the land has been declared by the agricultural ministry as forestry priority so the activity is expected to continue throughout the project lifetime and beyond.

2.3.16 Community Employment Opportunities (VCS, 3.19.13; CCB, G3.10)

The project is having an impact in a big area located in the Center east region of Uruguay. All the people in the communities (including women, minorities and poor people) are involved directly or indirectly with the project.

All people from the region are given an equal opportunity to fill all work positions if the job requirements are met. A transparent system of contracts is available, through price calls to award long-term contracts and permanent evaluations of suppliers are carried out.

According to the records corresponding only for the years 2021 – 2024 during the implementation of the project, forestry activities (plantation, harvest, sawmills and road works) conducted by contracted companies, translates into a labor of more than 1644 new workers. From the total number of contractors working for Forteko, it is estimated that around 82% of these contractors are living in the project area departments⁴⁷.

There are some forest activities where more subtle or dainty movements are needed or where more meticulous work is demanded, which is the case of the work at nurseries or the harvesting with ultra-sophisticated harvesters. In such cases, women could be better qualified for the task, this is also the case for administrative and technical work (p.e GIS). It is expected that women from the community can participate in such types of activities, or others.

Since 2015, the company has a formal system to record and centralize the information of subcontracted companies, where all the data provided is available, based on the number of operators per company, which allows the documentation of the activity, as well as the training history carried out by the Operators, both by the contracting companies and by BDU III.

Moreover, as mentioned, AF has been granted the “Best place to work” award both general and for women, showing its commitment towards gender equality. In 2022, AF was ranked 16th among the best companies in Uruguay for women to work at⁴⁸, and in 2024, it was also recognized by Great Place to Work® as 77% of employees reported that this is an excellent place to work⁴⁹.

⁴⁷ EIS Terena S.A (2018) Relevamiento de empleados. Survey conducted by the company who previously owned some of AF´s farms within its employees but can be extrapolated to BDU employees given the same employment conditions.

⁴⁸ <https://www.greatplacetowork.com.uy/listas/los-mejores-lugares-para-trabajar-para-mujeres-en-uruguay/2022>

⁴⁹ <https://certificaciones.greatplacetowork.com.uy/agroempresa-forestal>

2.3.17 Occupational Safety Assessment (VCS, 3.19; CCB, G3.12)

Forteko project considers the Safety and Health of the people, and of everyone directly or indirectly related to the activities, to be of the utmost importance. The company has implemented a system, coordinated by prevention technicians, oriented to the care of occupational safety, well-being and health risks of the personnel who work in the field. The system encompasses, each and every one of the employees and contractors are committed to take care of their own safety as well as their co-workers’.

Safety management is treated as a continuous self-improvement process which materializes in a systematic process of risks identification, assessment and control which requires the participation of everyone. In this line risk assessments are conducted for the different activities in the project, with the corresponding evaluation in line with the safety plan. Contractors are also evaluated through a registry they are requested to fill⁵⁰.

According to national legislation, the employer has the obligation to register in the Social Security Bank (“Banco de Previsión Social” - BPS) and the Ministry of Labor and Social Security. By this, the employee assures health assistance for every member of the family.

Risk assessment

The environmental impacts assessment conducted in the properties identifies those impacts on workers related to forestry activity. Moreover, a specific impact assessment regarding agrochemicals use was conducted and results are available to VVB during verification (see figure below). In this line, only trained employees in specific agrochemicals application procedures are authorized to manipulate them.

⁵⁰ The annual Impact Report includes a section for reporting working accidents and its severity level. Available in shared folder “Community impacts”

CÓDIGO ID	Fipronil	Principio activo	Fipronil
FECHA	15-mar-21		
Tasa de aplicación (base producto comercial)	5,00E+00	Tasa de aplicación (base principio activo)	1,50E-04
Unidades	lg producto comercial / ha efectiva*	Unidades	lg p.a. / ha
CÓDIGO ID	Fipronil		
ID Riesgo	Indicadores riesgo	Grupo receptor	Datos del escenario
SALUD OCUPACIONAL - OPERACIÓN NORMAL			
Código	Nº	HI	HI cáncer
SON	1	Sin HI-6,5-8-9-10-11	
SALUD OCUPACIONAL - ACCIDENTES LABORALES			
Código	Nº	HI Superior	HI Central
SO-Ac	1	Todo los HI-1	
SALUD DE POBLACIÓN - OPERACIÓN NORMAL - EXPOSICIÓN AGUDA (concentración máxima diaria)			
Código	Nº	HI Superior	HI Central
SPN-A	1	Todo los HI-1	

Figure 4. Part of the risk analysis conducted for Fipronil use.

Mitigation actions have been defined for each:

- Accidents caused by animals (ophidians, etc): mandatory use of safety boots and gaiters. Its risk estimation is classified as MODERATE.
- Agrochemical contamination: mandatory use of personal protective equipment (PPE), including boots and coveralls; Training personnel on the risks they are exposed to and the importance of using PPE, redesigning coveralls to better protect areas that are more exposed to contact with the product. Its risk estimation is classified as MODERATE.
- Fires: no smoking in work areas, use of spark-proof devices on tractors and training on preventive measures to avoid fires. Its risk estimation is classified as IMPORTANT.

After the action plan has been implemented, the responsible person must verify that it is followed; the risk is considered controlled if the action plan is followed. If an accident occurs, the action plan must be reviewed and the cycle starts again: plan, do, check and act (Deming).

The continuous rotation of personnel is a major cause of possible accidents, given the lack of experience and training of personnel, so we try to reduce this rotation and train each new operator in the task. All accidents are reported and monitored in the annual summary report.

2.4 Management Capacity

2.4.1 Required Technical Skills (VCS, 3.19; CCB, G4.2)

For the development of the Project, the required skills and experience are related to:

- Experience in management of natural resources conservation projects

- Ability to interact with different actors and stakeholders,
- Development of Projects with rural populations,
- Experience in the development of carbon projects and environmental services
- Experience in the evaluation and monitoring of biodiversity

The project owner and the experts group provide technical advice and technical training and carry out Project implementation of quality control and quality assurance at the same time.

All the workers (both own personnel as well as contractors) will be trained in order to perform the activities with adherence to the Principles & Criteria of the Forest Stewardship Council® (FSC®) for forest management and chain of custody. These are specialized in engineering, forestry, administrative and technical. All these employees are included in the company's "Annual Capacitation Plan"⁵¹.

AF works with different external advisors. In terms of social and environmental monitoring, AF hires an external team. All biodiversity surveys are conducted by experts external to the project specially hired for fauna and flora monitoring. While annual monitoring of sites is conducted by internal employees. Regarding forest inventory monitoring, AF hires experts to conduct the monitoring, and has a technical team, within the planning area, in charge of controlling and analyzing data results obtained from a systematic tool which makes biomass estimations. Regarding community surveys in the last year it hires a consultancy firm to conduct and report results.

Regarding forest inventory monitoring, third party team of experts is hired to conduct the monitoring, while Forteko project has a technical team, within the planning area, in charge of controlling and analyzing data results obtained from a systematic tool which makes biomass estimations.

Moreover, regarding carbon credits, the project team works together with a consultancy firm which provides services and constant support in the climate and carbon aspects of the project.

2.4.2 Management Team Experience (VCS, 3.19; CCB, G4.2)

Forteko project is proposed, designed, implemented, operated and administered by Agroempresa Forestal (AF) on behalf of "Fideicomiso Financiero Forestal Bosques del Uruguay" (BDU, the trust fund). AF has a long track record in managing forests. It started its activities in Uruguay in 2000 as a forestry services company and expanded to Chile and Brazil in 2007 and 2010 respectively. Currently AF offers services throughout the forest growth stages from consulting to forest lands management services. The company supervises more than 50,000 hectares per annum only in Uruguay, plus another 50,000 hectares in Chile and Brazil. Its main clients are responsible for

⁵¹ Documentation available to VVB in shared folder "Training"

more than 80% of Uruguay's afforested area (UPM, Weyerhaeuser, Montes del Plata, Arauco, etc.).

AF has a professional, highly specialized and fully independent team composed by agricultural engineers, foresters and field supervisors and administrative staff. Also 40 forestry services companies are associated with AF. This makes AF a market leader in the provision of forest services.

The project owner has many years in sustainable forest management projects, having been certified under FSC, for which it has developed capacities to interact with different types of actors, and as a result, it has established cooperation agreements with local governments, companies, producer organizations and local communities. It has also developed a system applicable to environmental projects, which has effective tools and methodologies to have effective control over the interventions carried out.

The company manages its forest plantations integrated with other land uses, optimizing the management of natural resources in a responsible manner in accordance with the companies' sustainable forest management policy:

- *The Forests that make up the "GRUPO AGRO EMPRESA FORESTAL" are committed to the environment, for this reason we make an efficient and rational use of natural resources, minimizing the use of pesticides and not using those that are prohibited.*
- *The respect and protection of these resources are in line with our commitment towards continuous improvement.*
- *We ensure that our operating processes minimize negative impacts on our employees and the environment, safeguarding their health and safety. To this end, we comply with applicable regulations and requirements.*
- *We seek to contribute to the economic and social development of our local communities through the generation and valorization of forestry work.*
- *We ensure that our employees are trained so that they are responsible and committed to the environment and their daily work.*
- *We provide our employees, adjacent communities and other stakeholders with relevant and appropriate information about the environmental and social quality of our operations.*
- *We encourage the AF GROUP's key suppliers to comply with our Sustainable Forest Management Policy.*

AF GROUP works according to economic, social and environmental principles that demonstrate a long-term commitment to sustainable environmental, complying with the Principles and Criteria of the Forest Stewardship Council™ (FSC®).

Previously to AF, Cambium Forestal S.A provided its consultancy and management services to Forestal Tekoayhu. Cambium Forestal Uruguay S.A. is a company dedicated to managing forestry businesses and assets of national and foreign investors. Cambium also provides international consulting services in countries such as Argentina, Brazil, South Africa, New Zealand, USA and Australia, in the areas of forestry market, sawmills, plantation management, mapping, economic evaluation, strategic, tactical and operational planning of forestry projects.

In Uruguay, Cambium Forestal Uruguay S.A. has its head office in Montevideo and manages the ownership of four companies, dedicated to the management of forest plantations with the objectives of solid and pulpwood. In this way, it is the administrator of the Cambium Forestal Uruguay group, for the purposes of FSC certification, with the FSC certificate. FSC certification, with certificate number: GFA-FM/COC-001693.

In relation to the carbon component of the project, Carbosur SRL was the consultant hired in charge during validation and first monitoring period. Carbosur had been hired by Forteko as the contractor in charge of managing all aspects related to VCS registration, project validation, monitoring and verification. Carbosur has experience with VCS forest projects, having effectively registered six afforestation projects under the VCS (at the time of Forteko validation). In addition, Carbosur has vast experience with the CDM and VCS, having successfully led the registration of one A/R CDM project (#3845), and having contributed significantly to the development of the first consolidated methodology for A/R CDM projects (ARACM0001), which is the one used for Forteko project. Carbosur also proposed to the A/R Working Group of the CDM a tool for accounting soil organic carbon in A/R CDM projects, which was later approved, with modifications, by the CDM Executive Board.

Currently, whenever necessary, AF hires third parties to conduct specific surveys, analysis and assistance. This is the case of ProSustentia, with a contract for continuous assistance on Carbon credit and related activities. ProSustentia has worked on feasibility studies for projects of more than 20 companies. It also has vast experience in providing consultancy services for project's registry and carbon credit emissions⁵². Projects currently registered or under development include:

Project	Country	Standard
5 ARR projects	Uruguay	VCS + CCB
8 ARR projects	Argentina	VCS + CCB
2 ARR projects	Paraguay	VCS + CCB
2 IFM projects	Argentina	VCS + CCB

⁵² Further information on ProSustentia's experience is available in the shared folder "Stakeholders"

1 REDD+ projects	Argentina	VCS + CCB
IAM projects	Argentina	VCS
5 Renewable energy projects	Argentina	CDM
3 Renewable energy projects	Chile	CDM
1 Renewable energy projects	Chile	GS
1 Renewable energy projects	Peru	CDM
4 Renewable energy projects	Brazil	CDM

In the same line, the PP works together with biodiversity and community experts on the impacts surveys, and mitigation actions to promote biodiversity conservation and recovery. CVs of the biologists and sociologists are available for the VVB during verification⁵³.

Last, regarding the forest inventories, this service is hired to a third party. For these monitoring period the companies in charge of installing sample plots in the field and conducting forest inventories, first data consistency analysis and checks were Bosques Servicios Forestales SA and Pal Monte SAS⁵⁴.

Moreover, Forteko's project technical team receives training on: the environmental management policy of the AF, the FSC principles and requirements, the management plan main chapters – among others issues - to warranty their competencies to perform their duties as established in BDU Training Plan Procedure⁵⁵. Contractors also receive training on various topics among security and FSC principles and criteria. Contracts include the inventory guidelines, described in the aforementioned Forest Inventory Manual.

2.4.3 Project Management Partnerships/Team Development (VCS, 3.19; CCB, G4.2)

Moreover, AF takes part in the Forestry Producers Association in Uruguay, where partners identify needs and analyze mitigation actions on different subjects. For example, different analysis related to forestry impacts are conducted, as well as communication campaigns and actions on pests and fire control, among others.

2.4.4 Financial Health of Implementing Organization(s) (CCB, G4.3)

⁵³ Further information on biodiversity and community experts is available in the shared folder "Stakeholders"

⁵⁴ Further information on forest inventory team is available in the shared folder "Stakeholders"

⁵⁵ Available for the VVB at verification in shared folder "Training".

The project developer is legally registered company in Uruguay, and according to the public information listed in National Enterprise Credit Information Publicity System, none of them were involved in or complicit in any form of corruption such as bribery, embezzlement, fraud, favoritism, cronyism, nepotism, extortion, and collusion.

BDU III Trust's objective is to structure a long-term investment alternative supported by a tangible asset that increases its value throughout time and by a strong management plan⁵⁶. Following the highest productive, environmental and social standards, and aiming to attain a production of high quality timber, the trust will offer pension fund investors reasonable long term profits.

The novelty of this trust lies in the fact of being the first one in the history of the country presenting a public offer at Montevideo stock exchange and the first one that convinces a pension fund (called AFAP in Uruguay) to invest in this type of project with physical assets and productive risks. In general, these funds invest in low risk government bonds which offer similar rates of return but at a much lower risk.

Among the values promoted by the trust are: excellence in the performance, accountability and ethics. In order to convince the pension funds to invest money in the trust many aspects of Forteko project were highlighted, being climate change mitigation, sustainability and carbon credits incomes the most relevant ones. The endeavor was not easy though. In fact, in the last days prior to the certificated issuance the whole process was close to failing given the negative pressure from some of the AFAPs, who were reluctant to commit before the IPO.

In order to become operative, the Trust had to obtain the approval of its business plan from the president of the country and the Central Bank of Uruguay.

The total investment of the project in year zero was 50 million USD. Based on this information it is possible to determine that the project cash flow breakeven point is 11 years and 11.4 months.

Regarding Forestal Tekoayhu, its financial health was demonstrated in the validation process under VCS.

The next section includes information regarding avoidance of corruption and other unethical behaviors.

2.4.5 Avoidance of Corruption and Other Unethical Behavior (VCS, 3.19; CCB, G4.3)

Although Uruguay in many aspects already has regulations in line with those established by the anti-corruption Convention, on the one hand of a preventive nature and on the other repressive, there is still no anti-corruption law in Uruguay for the private sector.

⁵⁶ Prospects and annual risk assessments are available in BDU website: <https://www.bosquesdeluruguay.com/bdu-iii/>

Anyway, this project has an Operating Framework Guide where it is clearly explained that corruption and other unethical behaviors are totally forbidden for both project proponent´s⁵⁷. Moreover, as legally registered companies, the project owner and other involved entities have the obligation to comply with relevant regulations. The annual audit on general legislation compliance makes sure that it operates with full compliance with Uruguay law and regulations, and has a systematized system to follow up on contractors and other stakeholder´s compliance⁵⁸.

This project has a Forest Management General Manual where it is clearly explained that corruption and other unethical behaviors are totally forbidden within the forest operations, as part of its Sustainable Forest Management policy⁵⁹:

“The members of the AF Certification Group commit to not being directly or indirectly involved in the following activities:

- Illegal logging or illegal trade of timber or forest products;
- Violations of human or traditional rights in forestry operations;
- Destruction of high conservation values in forestry operations;
- Significant conversion of forests to plantations or non-forest uses;
- Introduction of genetically modified organisms into forestry operations;
- Violation of any of the ILO's core conventions, as defined in the Declaration of Fundamental Principles and Rights at Work, 1988;
- Engaging in corrupt practices or activities.

This policy is implemented, audited, reviewed, and communicated to all stakeholders within the organization.”

Implementation is evidenced through the FSC certification for the project´s activities in FSC summary reports, in section 10 “Results”, under FSC Principle 1 compliance⁶⁰.

2.4.6 Commercially Sensitive Information (VCS, 3.5.2-3.5.4; CCB Program Rules, 3.5.13 – 3.5.14)

None of the project documents will be considered as commercially sensitive information, and all the documentation is available to any stakeholders. Only calculation spreadsheets will be uploaded with limit access. In order to prevent the misuse of the equations within the project´s

⁵⁷ Code of Ethics available to VVB in shared folder “Forest management” for both PP

⁵⁸ Oval´s scope of work available for VVB in shared folder “Forest management”

⁵⁹ Sustainable forest Management Policy in shared folder “forest management”

⁶⁰ This include working conditions, fiscal regulations, environmental legislation, among others and compliance of legislation is evidenced in FSC summary reports, in section 10 “Results”, under FSC Principle 1 compliance. Summary available for VVB during verification in shared folder “FSC”.

ERR spreadsheet is that it is a read-only version, and has locked cells to ensure the integrity of the calculations. Moreover, information on the raw forest inventory data from the project's biomass will be hidden and will be reported in a summarized way at a stratum level.

2.5 Legal Status and Property Rights

2.5.1 National and Local Laws (VCS, 3.1, 3.6, 3.7, 3.14, 3.18, 3.19; CCB, G5.6)

The project activity complies with the National law and binding regulations, since forest investment has been approved by the General Forestry Directorate (entity of the Ministry of Agriculture, Livestock and Fishery) and the National Environment Directorate (entity of the Ministry of Housing, Territorial Planning and the Environment at the time of project presentation, since July 2020 in charge of the National Directorate of Quality and Environmental Assessment under the Ministry of Environment). The former ensures that the project activity complies with National Law N° 15.939 and all binding decrees and decisions, while the second grants environmental authorization. This can also be evidenced with the fulfilment of principle 1.1 of FSC certification. Moreover, AF hires a third party service (Oval) to verify the compliance of labor obligations, documentation control and field audit of its contractors as well⁶¹.

The only new laws applicable to the project are:

- Decree No. 405/021 (2021) Date: Published on December 10, 2021, Modified the environmental permitting requirements for new forest plantations, introducing a more flexible regime for certain areas. The main requirements are:
 - Establishment of the Environmental Registry for Forest Plantations, managed by DINACEA (National Directorate of Environmental Quality and Assessment).
 - Mandatory prior registration for new plantations between 40 and 100 hectares, before operations begin. The registration is valid for up to three forest cycles.
 - Detailed technical requirements for registration include: owner identification, project objective and location, area and species involved, nearby water basins and sensitive ecosystems, georeferenced plantation design
 - Strict environmental conditions, such as at least 50% of the area must be officially classified as forest-priority soils; plantation basins must have less than 80% existing forest cover in zones larger than 1,000 ha, mandatory buffer zones: 20 m from permanent watercourses or native forests; 10 m from wetlands, palm groves, rocky outcrops.
- Decree No. 3/025 (2025) Date: Published in 2025. A reform of Decree 405/021, updating environmental requirements, evaluation timelines, and technical conditions for new forestation projects. The main changes are:

⁶¹ Oval's scope of work available for VVB in shared folder "Forest management"

- For plantations of 100 ha or more in areas previously forested and without prior permits, an Environmental Special Authorization (AAE) is now required (instead of a full Environmental Prior Authorization or AAP).
- Allows project implementation to begin prior to approval, as long as DINACEA is notified 30 days in advance.
- For areas between 40 and 100 ha, registration becomes optional for lands already forested. Registrations remain valid for three plantation cycles (approx. 30 years).
- Provides a clearer definition of “new forest plantation”, now specifically referring to projects established on lands with no prior forestry use.

Evidence for the compliance of local and national laws is provided under the FSC annual certifications, section 10 “Results”, complying with Principle 1 of the FSC.

2.5.2 Relevant Laws and Regulations Related to Worker's Rights (VCS, 3.18, 3.19; CCB, G3.11)

There is a national legislation aimed at the enforcement of safety and health standards, which is controlled by the Ministry of Labor. Moreover, Decree 108/07 states the needed control documentation for different economic activities. This documentation includes job control spreadsheets that all organizations must monitor.

Forestry in the country has its own regulation for labor conditions (Decree 372/99), on top of many norms which affect any activity. This decree was developed with the active participation of the forest producers, and basically defines several rules for safety, health and living conditions of forest workers. It establishes the norms that must be considered in the performance of the different tasks to cover all aspects related to the health and safety of forestry employees. It regulates the use of personal protective equipment in accordance with each task (including agrochemicals), the conditions that must be met by forest workers' accommodation, and the characteristics of canteens when they are used in the forest area, among others.

Uruguay also has a National Code of Good Forestry Practices applicable to the forestry sector, which is a set of prescriptions and work guidelines for forestry workers. This code is of voluntary implementation, but it is enforceable at the level of the FSC certification standard.

Another important regulation relates to the minimum wage regime. In Uruguay, the law promotes the appointment of sectorial three-party committees⁶² (government, workers and companies) to discuss worker categories and minimum wages applicable to each category. The agreements reached by these committees are mandatory for all the companies in the corresponding sector. Historically, rural activities were not included in these committees, and minimum wages were fixed by decrees. In 2005, the forest companies, the forest workers and the government reached the first ever agreement for a minimum wage regime in rural activity.

⁶² These committees are called "Consejos de Salarios" in Spanish.

These agreements set minimum wages by category, with semi-annual adjustments based on inflation and dollar variations. Employees work 48 hours a week, with a maximum of eight hours per day, (except if the hours worked on Saturdays are distributed from Mondays to Fridays). In this case the hours worked per day can be extended to nine and a half hours. On the other hand, Law 17.829/04 states the conditions on withholdings on wages and salary remuneration and passives for workers.

Forest industry workers are organized in a specific union. SOIMA (Uruguay's Wood Industries Workers Union). As of 2014, the Union is presented as one of the strongest in the country and has negotiated significant improvements in wage conditions.

As the Project follows FSC standards (as demonstrated), the working conditions are achieved as the different FSC annual summary reports⁶³. Moreover, BDU II requests the same compliance to all the contractors involved within its contract. A system is in place to monitor the compliance of the legal standards in the sector, including contractors' workers⁶⁴. Moreover, AF and FSC principles and policies (communicated during training to all workers) include code of ethics, anti-discrimination, security, among other rights for workers⁶⁵.

2.5.3 Human Rights (VCS, 3.19)

Prior to the project initiation, all the project land was owned by previous project proponent and now the BDU Trust Fund. Land tenure evidence is provided through notarial certificates of ownership which comply with Uruguayan legislation. To ensure the successful development of the project, the project owner, which had the ownership of forest land had presented all the requested documentation to government authorities. So, the project will not encroach uninvited to private property, community property or government property; the ownership is clear, and there is no dispute over land ownership on the project site. Moreover, evidence of complying with principal n° 2 Rights and Responsibilities of Tenure and Use of FSC certification are reported in FSC summary reports publicly available.

Cattle breeding activity owners are invited to continue the activity within the property once the trees are 2-3 years, to avoid damages. This is done through signed agreements. The same applies to beekeepers.

2.5.4 Indigenous Peoples and Cultural Heritage (VCS, 3.18, 3.19)

Even though it is a subject of debate among different historians, the historical reports of the different auditing houses that certify in Uruguay indicate that there is no indigenous population according to the definitions of FSC. Only a new stream of people who have recognized themselves as descendants of indigenous communities, but who currently reside in cities and rural areas (6.5 % of the Uruguayan population in the whole country).

⁶³ All FSC annual summary reports available to VVB during verification in shared folder "FSC"

⁶⁴ Third party service scope of work available to VVB in shared folder "Forest management"

⁶⁵ Principles and policies available to VVB during verification in "Forest management"

No cultural heritage was identified within the project area during the different consultation processes.

2.5.5 Recognition of Property Rights (VCS, 3.7, 3.18, 3.19; CCB, G5.1)

Disputes over rights to territories and resources	N/A
Respect for property rights	Prior to the project implementation, the project area was degraded grasslands where farmers (private owners) used these lands for extensive beef production. Private owners voluntarily sold the lands to Trust Fund, therefore the project activities will not lead to involuntary removal or relocation of property rights holders from their lands or territories, and does not force rights holders to relocate activities important to their culture or livelihood. Cattle breeding activity owners are invited to continue the activity within the property once the trees are 2-3 years, to avoid damages. This is done through signed agreements.

2.5.6 Benefit Sharing Mechanism (VCS, 3.18, 3.19)

Not applicable

2.5.7 Free, Prior, and Informed Consent (VCS, 3.18, 3.19; CCB, G5.2)

Consent	Not applicable. Prior to the project initiation, all the project land was owned by BDU project. Land tenure evidence is provided through notarial certificates of ownership which comply with Uruguayan legislation. To ensure the successful development of the project, the project owner, which had the ownership of forest land had presented all the requested documentation to government authorities. So, the project will not encroach uninvited to private property, community property or government property; the ownership is clear, and there is no dispute over land ownership on the project site. Moreover, evidence of complying with principal n°2 Rights and Responsibilities of Tenure and Use of FSC certification are reported in FSC summary reports publicly available.
Outcome of FPIC	Not applicable. Cattle breeders and beekeepers are transparently informed of the project's objectives, land management practices, and future forest use. These arrangements are formalized through written agreements. No physical or economic displacement has occurred because of the project activities.

2.5.8 Property Right Protection (VCS, 3.18, 3.19; CCB, G5.3)

Prior to the project implementation, the project area was degraded grasslands where farmers (private owners) used these lands for extensive beef production. Private owners voluntarily sold the lands to project owners; therefore, the project activities will not lead to involuntary removal or relocation of property rights holders from their lands or territories and does not force rights holders to relocate activities important to their culture or livelihood. Cattle breeding activity owners are invited to continue the activity within the property once the trees are 2-3 years, to avoid damages. This is done through signed agreements.

As mentioned, even though it is a subject of debate among different historians, the historical reports of the different auditing houses that certify in Uruguay indicate that there is no indigenous population according to the definitions of FSC. Only a new stream of people who have recognized themselves as descendants of indigenous communities, but who currently reside in cities and rural areas, representing 6.5% of Uruguay population.

2.5.9 Identification of Illegal Activity (VCS, 3.19, CCB, G5.4)

The forests are nursed by project staff regularly as a result of the implementation of the project and legal requirements, so there will not be illegal activities or deforestation of native forests inside Forteko farms or surrounding the project boundaries. Furthermore, all farms are gated and a conflict resolution procedure exists, where illegal activities are addressed detailing modo operandis. Therefore, the project's climate, community and biodiversity impacts will not be affected by illegal activities.

There has not been any direct communication to AF of illegal hunting, nor through the community surveys or reported in the flora and fauna monitoring reports for BDU II. On the other hand, there has been evidence of a hunting camp found in another farm managed by AF but not part of this project. This is the case of BDU IV near Tacuarembó River, where the main threat to the HVC there is that areas, both inside and out of the farm, are used for recreational activities, including fishing and hunting, although not allowed within the property

2.5.10 Ongoing Disputes (VCS, 3.18, 3.19; CCB, G5.5)

Because the project owner signed legal purchase agreements on all the land, the forest land was developed reasonably and legally, so there are neither ongoing or unresolved conflicts or disputes over rights to lands, territories and resources nor any disputes that weren't resolved and recorded.

3 CLIMATE

3.1 Monitoring GHG Emission Reductions and Removals

3.1.1 Data and Parameters Available at Validation (VCS, 3.16)

Data / Parameter	A_i
Data unit	ha
Description	Area of stratum i
Source of data	Monitoring of strata and stand boundaries is done using a Geographical Information System (GIS) which allows for integrating data from different sources (including GPS coordinates and Remote Sensing data)
Value applied	Variable according to stratum
Justification of choice of data or description of measurement methods and procedures applied	<p>GPS is the most important tool used for measuring geographical variables or parameters: project boundaries and predefined stratum boundaries, forest area, area of disturbances (fires, droughts, harvesting, etc.). All information collected is immediately integrated into the GIS. Each plot coordinates are charged on the GPS before the field visit, in order to reach the exact location of each sample plot.</p> <p>Moreover, the tracks traveled for reaching each plot are also recorded by the GPS, including information about waypoints, time, location and altitude on each point of the route.</p>
Purpose of data	Calculation of project emissions
Comments	N/A

Data / Parameter	$BEF_{2,j}$
Data unit	Dimensionless
Description	Biomass expansion factor for conversion of stem biomass to above-ground biomass for tree species or group of species j

Source of data	IPCC default values (e.g. Table 3A.1.10 of IPCC GPG-LULUCF 2003) for ex-ante estimation, and default value 1.15 from CDM AR TOOL 14 for ex-post estimations.
Value applied	Ex-ante From 1.15 to 3.4, depending on the tree age for Pinus From 1.15 to 3.2 depending on the tree age for Eucalyptus Ex-post 1.15
Justification of choice of data or description of measurement methods and procedures applied	Default value for pinus and broadleaf species in temperate climate.
Purpose of data	N/A
Comments	Ex-ante: BEF varies with age, being the highest values for young plantations and the lowest for mature plantations. A conservative approach was taken varying the BEF very quickly, reducing it to a half by year 5 and considering the forest as mature at the age of 10 years.

Data / Parameter	CF _j
Data unit	t C t ⁻¹ d.m.
Description	Carbon fraction of tree biomass for species or group of species j
Source of data	Table 4.3 in IPCC 2006 Guidelines for National Greenhouse Gas Inventories - Volume 4 - Agriculture, Forestry and Other Land Use (no 2019 refinement)
Value applied	0.47
Justification of choice of data or description of measurement methods and procedures applied	Default value
Purpose of data	Calculation of project emissions

Comments	N/A
Data / Parameter	D _j
Data unit	t d.m. m ⁻³
Description	Basic wood density for species or group of species j
Source of data	<p>Table 4.14 Basic wood densities (D) of selected temperate and boreal tree taxa from IPCC 2006 Guidelines for National Greenhouse Gas Inventories - Volume 4 - Agriculture, Forestry and Other Land Use (no 2019 refinement).</p> <p>For Eucalyptus: ACHUGAR, L.; SCAGLIONE, G. 2003. Evaluación de propiedades de la madera en clones de <i>Eucalyptus grandis</i> Hill (ex Maiden). Thesis Ing.Agr. Montevideo, Uruguay, Universidad de la República-Facultad de Agronomía</p>
Value applied	0.44 for Pinus 0.38 to 0.49 (depending on the tree age) for Eucalyptus
Justification of choice of data or description of measurement methods and procedures applied	<p>Default value for Pinus</p> <p>For Eucalyptus:</p> <ol style="list-style-type: none"> 1) basic density values are taken from results of a thesis investigation work (national and local data) 2) the values used are the ones from the bottom of the confidence interval of 95%, to be conservative 3) values are plotted and tendency line is added, the tendency line with the highest r² 4) power function is used to estimate the density values for the whole period 5) real and calculated values are plotted
Purpose of data	Calculation of project emissions
Comments	N/A
Data / Parameter	R _j

Data unit	Dimensionless
Description	Root-shoot ratio for species or group of species j
Source of data	Tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs" from Table 3A.1.8 of IPCC GPG-LULUCF 2003
Value applied	<p>Ex – ante</p> <p>Pinus: 0.23 to 0.46 depending on aboveground biomass;</p> <p>Eucalyptus: 0.20 to 0.45 depending on biomass values</p> <p>Ex – post</p> <p>Varies depending on an equation which used the aboveground biomass as an input (specific values are presented in the ex-post carbon estimations)</p>
Justification of choice of data or description of measurement methods and procedures applied	<p>Default values according to the range of biomass will be used during ex-ante calculations. According to IPCC 2003, the value of R depends on aerial biomass (t / ha) for Eucalyptus/Pinus. For values less than 50 tonnes / ha 0.45/0.46 was used, for values between 50 and 150t/ha 0.35/0.32 was used and for over 150 0.2/0.23 was used respectively.</p> <p>During ex-post calculations, the value arising from the equation corresponding to Tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs" will be used as follows:</p> $R_j = \frac{e^{(-1.085+0.9256 \times \ln b)}}{b}$ <p>where b in the above-ground biomass calculated</p>
Purpose of data	N/A
Comments	Specific values will be calculated in the ex-post carbon estimations based on corresponding equation

Data / Parameter	$V_{TREE\ j\ p\ i}$
Data unit	m ³
Description	Stem volume of trees of species or group of species j in plot p in stratum i

Source of data	Local Growth Models Growth projections from local growth model using local parameters from AF Group for same species and silvicultural activity in the project zone.
Value applied	N/A
Justification of choice of data or description of measurement methods and procedures applied	In all cases local data is used, based on projections generated by AF for farms under similar conditions to project area by species, using average projection values.
Purpose of data	Value used to determine the project ex – ante carbon sequestration
Comments	In case of ex-ante calculation, growth was estimated based on average growth according to specific site conditions presented in the project site. Local growth models were used for ex-ante estimation to describe the yield curve and determine the Long Term Average of available carbon credits. Local growth models will not be used for ex-post estimation which were based on field measurements: tree´s DBH and height.

Data / Parameter	Bark volume
Data unit	m ³ /ha
Description	Bark volume of trees of species j
Source of data	Methodological tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs" V.1 for Pinus. For Eucalyptus, a tendency line is calculated by AF group based on a local survey on diameter with and without bark in project zone.
Value applied	Pinus: 15% of total stem volume Eucalyptus: varies according to age with values of 24.15% during first year and 10.88% at year 18.
Justification of choice of data or description of measurement methods and procedures applied	Default value is used in the case of Pinus. For Eucalyptus the procedure is detailed below:

	<p>1) SAG software is used to calculate the volume of trees in a plot in different years (3, 6, 9, 12, 15 and 16), based on the growth simulation model of AF group project with same characteristics.</p> <p>2) Volume with and without bark is provided as a result, bark percentage is calculated.</p> <p>3) Results are copied into this worksheet sorted by age and plotted.</p> <p>4) Tendency line is estimated (with the highest r^2)</p> <p>5) According to the tendency line, bark percentage is inter and extrapolated until year 30</p> <p>6) Both bark percentage is plotted using real and extrapolated values</p>
Purpose of data	Value used to determine the project ex – ante carbon sequestration and project emission capture
Comments	The bark volume is a variable used in the ex-ante calculation. During field measurement, the volume of trees is estimated with bark when diameters are measured over bark

Data / Parameter	SOC REF
Data unit	t C ha ⁻¹
Description	Reference SOC stock corresponding to the reference condition in native lands (i.e. non degraded, unimproved lands under native vegetation, normally forest by climate region and soil type applicable to stratum i of the areas of land under High Activity Clay soils (HAC)
Source of data	Table 3 of “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM Project” activities. V1.1
Value applied	88
Justification of choice of data or description of measurement methods and procedures applied	Default value for warm temperate climate and HAC soils

Purpose of data	Calculation of project emissions
Comments	The ex-ante calculation for SOC change is modified under this verification, corrected by the modified total areas.

Data / Parameter	$f_{IN,i}$
Data unit	Dimensionless
Description	Relative stock change factor for baseline input regime (e.g. crop residue returns, manure) in stratum i of the areas of land
Source of data	Tables 6 of “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM Project” activities. V1.1
Value applied	1
Justification of choice of data or description of measurement methods and procedures applied	Low to medium input of fertilizers (All grassland without input of fertilizers is assigned an input factor of 1)
Purpose of data	Calculation of project emissions
Comments	The ex-ante calculation for SOC change is the same calculation as in the verification, corrected by the modified total areas.

Data / Parameter	$f_{MG,i}$
Data unit	Dimensionless
Description	Relative stock change factor for baseline management regime in stratum i of the areas of land.
Source of data	Table 6 of “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM Project” activities. V1.1.
Value applied	0.70
Justification of choice of data or description of measurement methods and procedures applied	Default value for Severely degraded grassland.

Purpose of data	Calculation of project emissions
Comments	The ex-ante calculation for SOC change was modified in the verification, corrected by the modified total areas. Lands have been identified as degraded lands using the “Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities”.

Data / Parameter	$f_{LU,i}$
Data unit	Dimensionless
Description	Relative stock change factor for baseline land use in stratum i of the areas of land; dimensionless
Source of data	Tables 6 of “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM Project activities” V.1.1.
Value applied	1
Justification of choice of data or description of measurement methods and procedures applied	Default value for all permanent grassland is assigned a land-use factor of 1
Purpose of data	Calculation of project emissions
Comments	The ex-ante calculation for SOC change is the same calculation as in the verification, corrected by the modified total areas.

Data / Parameter	Dead Wood
Data unit	t C ha ⁻¹
Description	Conservative default factor expressing carbon stock in dead wood as a percentage of carbon stock in tree biomass
Source of data	Tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities” V3.1
Value applied	8% of carbon stock in trees biomass

Justification of choice of data or description of measurement methods and procedures applied	Default value for temperate/boreal climate regime
Purpose of data	Calculation of project emissions
Comments	N/A

Data / Parameter	Litter
Data unit	t C ha ⁻¹
Description	Conservative default factor expressing carbon stock in litter as a percentage of carbon stock in tree biomass
Source of data	Tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities” V.3.1
Value applied	4% of carbon stock in trees biomass
Justification of choice of data or description of measurement methods and procedures applied	Default value for temperate/boreal climate regime
Purpose of data	Calculation of project emissions
Comments	N/A

3.1.2 Data and Parameters Monitored (VCS, 3.16)

Data / Parameter	Ai
Data unit	Ha
Description	Area of stratum i
Source of data	Monitoring of strata and stand boundaries was done using a Geographical Information System (GIS)

Description of measurement methods and procedures to be applied	Strata area was measured based on cartography documents, related with GIS.
Frequency of monitoring/recording	Every time the project boundaries are modified. when disturbances events take place, the project participants shall re-build the stratum and add the area of the project under disturbance in the GIS
Value monitored	<p>Total planted area 2021: 14,184.5ha; Area monitored: 13,282.67ha</p> <p>Total planted area 2022: 14,022ha; Area monitored: 13,149.53ha</p> <p>Total planted area 2023: 13,933.5ha; Area monitored: 12,516.67ha</p> <p>Total planted area 2024: 13,920.8ha; Area monitored: 12,653.37ha</p>
Monitoring equipment	Garmin GPS, model eTrex Legend.
QA/QC procedures to be applied	N/A
Purpose of the data	Calculation of project emissions
Calculation method	The value was used in equations N° 3, 12 y 24 of the Methodological tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities” (Version 03.0.0), Equations N° 7 and 13 of the Methodological tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities” (Version 02.0.0)
Comments	N/A

Data / Parameter	DBH
Data unit	Cm
Description	Diameter at Breast Height of tree

Source of data	Field measurements
Description of measurement methods and procedures to be applied	DBH is measured at 1.3 m above ground, over the bark. In case of stem deformation at this level, measurement was done over the deformation once the stem took its normal shape, with the purpose of being conservative. DBH was measured in all trees within the plots.
Frequency of monitoring/recording	Every tree within sample plots
Value monitored	Varies with stratum
Monitoring equipment	In most of the cases, the instrument used for measuring DBH was a caliper model “Mantax Blue” of Haglof, Sweden. Also, for the minority of trees, it was used a diametric tape for measuring DBH.
QA/QC procedures to be applied	<p>A quality control procedure consisted in qualified personnel conducting the measurements in the first place, and the first control is conducted by contractor.</p> <p>Secondly, a random control of 5% of the plots measured is made by AF personnel, using the same data collection sheet, where unsupported errors include:</p> <ul style="list-style-type: none"> - a difference of more than 3% in the DBH measured with caliper <p>Instruments were checked and tested before starting the verification process. Items checked:</p> <ul style="list-style-type: none"> -Correct visualization if numbers in the calliper. -The straightness of the calliper and the lack of mechanical problems. <p>The calliper length is not a problem since it is impossible the equipment stretches.</p> <p>Bark that is not stick to the stem was removed before measuring.</p>
Purpose of the data	Calculation of project emissions.
Calculation method	The trees are considered to be inside the plot if more than 50% of DBH is inside the plot.

	<p>Diameters were measured by taking one measure, always pointing the instrument's shaft in direction to the middle of the plot.</p> <p>Parameter used indirectly in Equation N° 1 of the Methodological tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities" (Version 03.0.0); for calculation of basal area and then volume.</p>
Comments	N/A

Data / Parameter	H
Data unit	m
Description	Height of trees within sample plot
Source of data	Field measurement
Description of measurement methods and procedures to be applied	<p>All trees within the plot in the case of permanent plots.</p> <p>In relation to the height measurement, the following considerations according to each situation take place:</p> <ul style="list-style-type: none"> - Trees with zero slope: To achieve a correct measurement, the operator must be located at a distance equivalent to the tree height. It is important to keep in mind that the distance taken with the tape measure is the one entered in the inclinometer. - Measurements with slope (positive or negative): In those cases where the tree base is located over the contractor's visual sight, the measurement and total height will be a result of the subtraction of the measurements. If the operator is over a hill, the height will be the sum of the measurements. - Trees that are dead, burned, or broken will be excluded from the measurement. <p>In order to always measure the heights from the same location and thus avoid bias or errors, height records must always be made in the same direction. For this, the face of the tree where the measurement took place will be marked and identified with paint</p>

Frequency of monitoring/recording	During every monitoring, for every plot within different stratum.
Value monitored	Varies according to tree classes in plot
Monitoring equipment	Haglöf ECII-D Electronic Clino/Height Meter
QA/QC procedures to be applied	<p>A quality control procedure consists in qualified personnel conducting the measurements in the first place, and the first control is conducted by a contractor.</p> <p>Secondly, a random control of 5% of the plots measured is made by AF personnel, using the same data collection sheet, where unsupported errors include:</p> <p>Height measurements will not be made on those days where the wind speed exceeds scale 5 of Beaufort (30-38 km / hr), causing a great movement of the trees top (NOAA, 2020).</p> <p>- In the same way as with the DAP record, the height values will be expressed in decimeters, avoiding errors in the register.</p> <p>When referring to this electronic device, it is recommended to check the correct visualization of the display. The clinometer was always kept in safe places in order to avoid display rupture. The equipment was always full charged batteries and back up batteries were always available in case of emergency. At the same time it must previously be calibrated before each daily measurement activity.</p> <p>Make control measurements using all involved equipment (human error should be minimized at minimum with well training and cross-checked control measurement activities).</p>
Purpose of the data	Calculation of project emissions.
Calculation method	<p>Once the plot is delimited and all trees to be included are defined, all tree heights are measured in permanent plots. According to the measurement description.</p> <p>In order to avoid over- and under-estimations, every tree was considered inside the plot when the mark of 9.77/12.62/15.95m (radius of a circular plot of</p>

	300/500/800m ²) of the measuring plot overpassed the 50% of the diameter of every tree.
Comments	Parameter used indirectly in Equation N° 1 of the Methodological tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities“ (Version 03.0.0); for volume calculation.

Data / Parameter	Ap,i
Data unit	m ²
Description	Area of sampling plot
Source of data	Field measurement
Description of measurement methods and procedures to be applied	The center of the plot was marked with the assistance of a GPS. One staff member stayed at the center of the plot taking notes of the diameters and heights measured while the other expert of the team walked inside the plot measuring them. Both experts were always connected with a measuring tape, and every tree measured was previously checked in order to determine if the distance to the center was minor to 9.77/12.62/15.95 m (radius of a circular plot of 300/500/800m ²).
Frequency of monitoring/recording	Every plot measured in Forteko, 258 in total.
Value monitored	Varies with every plot
Monitoring equipment	N/A
QA/QC procedures to be applied	In order to avoid over and under-estimations, every tree was considered inside the plot when the mark of 12.62 m (and equivalent for Eucalyptus) overpassed the 50% of the diameter of every tree.
Purpose of the data	Calculation of project emissions
Calculation method	$500m^2 = r^2(12.62) \cdot \pi$ (<i>Pinus</i>) $300m^2 = r^2(9.77) \cdot \pi$ (<i>E.dunnii</i>)

	800m ² = $r^2 (15.95) \cdot \pi$ (<i>E.grandis</i>)
Comments	<p>Sample plots are permanent and circular. The plots were laid down in a shapefile, positioned systematically with a random start.</p> <p>The location of the plots within the forest plantation was done with a GPS.</p> <p>The area of each plot is not a variable but a fixed value, but must be measured by its radius in order to determine the variable "number of trees within the plot".</p>

3.1.3 Monitoring Plan (VCS, 3.16, 3.20)

AF has in place a Quality Management System certified UNIT-ISO 9001 since 2/12/2004. Furthermore, AF has set a forest management system for BDU projects. The system includes a Monitoring Plan - which specifies (among other relevant information) the forestry inventory -, procedures and monitoring reports. The documents are publicly available on BDU website.

BDU III Forest Management system is certified under FSC certification⁶⁶. These certifications evidence the concern and experience of AF in the implementation and management of very demanding control systems, and consequently in the monitoring of them to ensure the quality of the forestry. Therefore, AF staff is aware of the importance that monitoring has and is committed to monitor the data correctly for the entire crediting period.

BDU monitoring plan has been designed in line with the methodology AR-ACM0001 and its applicable tools referenced in sections 2.1 and 2.2 above in order to provide all relevant data necessary to verify: i) the applicability conditions listed under section 2.2 are met; ii) changes in carbon stocks in the pools selected; and iii) project emissions and leakage emissions.

The monitoring activities were carried out by a third party in accordance with the Forest Inventory Manual guidelines⁶⁷. Read below detailed information on the monitoring process:

The aim of the Monitoring Plan is to record and monitor a number of different parameters in order to ensure that the project followed the corresponding methodology in the validated and registered PD and that the inputs to the carbon calculations are both accurate and up-to-date. Monitoring was done according to the consolidated methodology AR-ACM 0001 "Afforestation and reforestation of degraded lands" (version 05.2.0, EB 65), as mentioned in previous monitoring report.

⁶⁶ UNIT-ISO 9001 and FSC certifications are available for the VVB in shared folder "FSC"

⁶⁷ Available to VVB during verification in shared folder "Forest management"

Monitoring stage comprised gathering information, performing calculations and making estimations of GHG removals. In this monitoring event, it is ensured that commonly established principles of forest inventory and management were put into practice with the implementation of the Monitoring Plan. The document is called Manual for forest inventory and is used as a Monitoring Plan. This document is prepared with the purpose of specifying the procedures and standardization for the measurement of each variable, to be delivered by third parties. This document is in Spanish and can be available for the verification team.

All data gathered as part of the monitoring plan was archived electronically and will be kept at least for two years after the end of the crediting period.

According to the methodology applied, monitoring covered carbon stock changes for living above-ground, litter and dead wood pools. Below ground biomass was estimated indirectly based on above-ground biomass measurements and litter and dead wood were estimated as a percentage of carbon stock in tree biomass. Monitoring events took place up to August 2024. The third parties involved in this stage were Bosques Servicios Forestales SA and Pal Monte SAS. It is a Uruguayan consultancy and services company, specialized in forest inventories.

With the purpose of controlling and checking the measurement equipment and measuring team capabilities, re measurements are conducted with no previous notice of 5 to 10% of total number of plots in the month of inventory. The staff in charge of this work is different from the one who made the first measurement on the same plot. If the difference between measurements for H and DBH are higher than 5 and 3% respectively, this sample plot should be eliminated from the total estimation of carbon stock and re measured in a 100%, according to Monitoring plan.

Organizational structure, responsibilities and competencies.

The organizational structure and responsibilities of AF team with regards to the monitoring system are as follow⁶⁸:

- **General Manager:** has the overall responsibility of the forest management system and thus, the monitoring plan.
- **Forests Administration Chief:** responsible for the operational management; resources monitoring; forestry inventories; coordination and control of activities; selection and control of contractors; supervision of AF personnel in various fields and approval of all system documentation.
- **Lands supervisors (AF personnel in the fields):** responsible for controlling the contractors' personnel activities in the fields; supervising the plantations; reporting the forest administration chief; among other activities.

⁶⁸ BDU management plan with company description and AF organizational chart and Job profiles and responsibilities available for the VVB in shared folder during verification "Forest management".

- **Forest inventory third party:** Bosques Servicios Forestales SA and Pal Monte SAS are the contractors in charge of installing sample plots in the field and conducting forest inventories, first data consistency analysis and checks.

Forteko´s project technical team receives training on: the environmental management policy of the AF, the FSC principles and requirements, the management plan main chapters – among others issues - to warranty their competencies to perform their duties as established in BDU Training Plan Procedure⁶⁹. Contractors also receive training on various topics among security and FSC principles and criteria. Contracts include the inventory guidelines, described in the aforementioned Forest Inventory Manual.

⁶⁹ Available for the VVB at verification in shared folder “Training”.

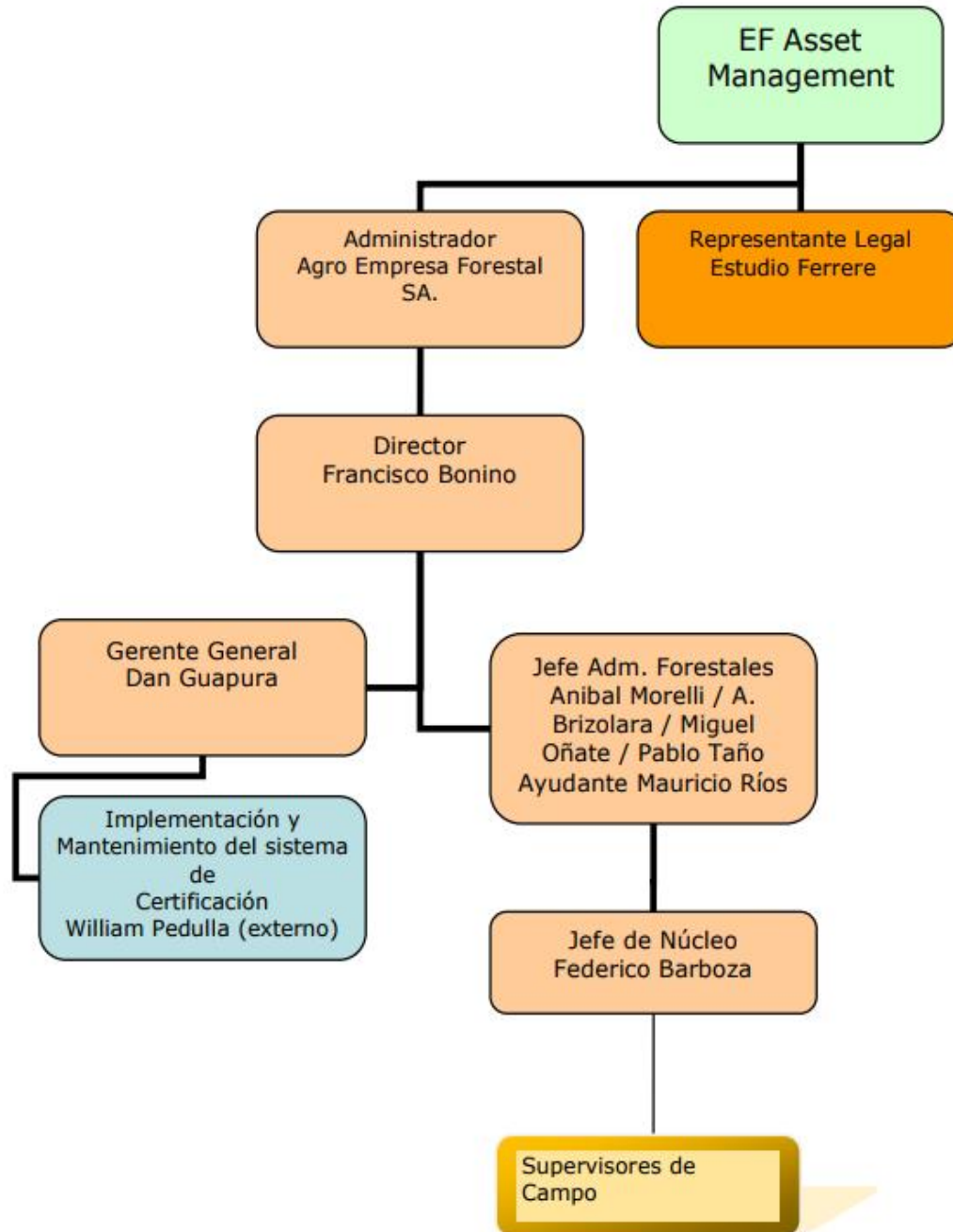


Figure 5. Organization's structure and person in charge

Inventory for permanent plots

They are fixed plots that are installed in the different stratum and whose purpose is to represent and reflect the different productivities. These plots are measured annually.

The objective is to generate information on the growth rate of a species in certain sites for decision-making related to forest management and monitoring carbon sequestration.

The permanent plots are installed as of the third year from plantation and are measured in the months of June to August when vegetative growth is slowed down. These plots have been installed following a stratified sampling design. The strata are defined as a combination of site quality, planting year, and species as already mentioned.

In case of installing a new permanent plot, this is defined in accordance with the criterion mentioned above. The site of the new permanent plot is located at a distance greater than or equal to 50 m from the edge and with a percentage of 90% live trees.

Stratification

Stratification eliminates sources of variation that can mask the results of the inventory, once the variability inside the strata shall be lower than that of the whole population. Hence, it will be possible to obtain more precise statistics due to the population stratification. The stratification also facilitates the data collection and the processing of it per stratum, being also suitable for the planning and execution of the work on the field.

Stratification was done considering soil classification, along with plantation year and species, to define monitoring strata (previous owners used region stratification but soil classification is considered as robust as region in order to define a monitoring stratum, especially taking into account the project is limited to two departments in the same country's region.

At the same time, the replacement of 21% of Pinus with Eucalyptus demanded the increase in the number of stratum for monitoring, leading to a total of 34 stratum. The new classification and number of plots monitored are detailed in table 6.

Table 6: Stratum and plots during verification.

Species	Year plantation	Soil (CONEAT)	Stratum	Area (ha)	Nº plots
<i>Eucalyptus dunnii</i>	2017	2	1	29.20	1
	2018	2	2	182.69	6
	2019	2	3	44.4	2
	2019	8	4	7.92	-
	2021	2	5	156.36	5
	2022	2	6	106,35	-
	2023	2	7	321,07	-

	2023	8	8	44,88	-
	2023	G	9	0,59	-
<i>Eucalyptus grandis</i>	2017	2	10	381.49	13
	2018	2	11	245.73	9
	2019	2	12	154.24	5
	2019	8	13	149.76	5
	2019	G	14	1,13	
	2020	2	16	3.23	-
	2020	8	17	7.56	1
	2021	2	18	316.7	5
	2022	2	19	221.80	
	2023	8	20	105.53	
	2023	2	21	238.48	
	2024	2	22	53.49	
	2024	8	23	122.25	
<i>Pinus tadea</i>	2007	2	24	119.48	2
	2008	2	25	2,857.0	83
	2008	8	26	843.20	9
	2008	otros	27	220.73	1
	2009	2	28	1,413.43	24

	2009	8	29	181.88	3
	2010	2	30	3,106.28	68
	2011	2	31	2,230.95	16
	2013	2	32	26,78	-
	2013	8	33	1,20	-
	2013	G	34	25,00	-
	TOTAL 2024			13,920.8	258

Current stratification could suffer subdivisions or merges in the case unexpected disturbances occur or insignificant intra-stratum variability is detected in the annual variation in carbon pools (e.g. forest fires).

• **Sampling**

The sample size involves the number of plots to be distributed with a certain statistical criterion in every stratum. The representative number of plots of the total project area and of every stratum shall be previously decided in order to accomplish the predefined level of accuracy and precision.

The size of the sample plot is a trade-off between accuracy, precision, and time (cost) of measurement. The size is also related to the number of trees, their diameter and the carbon stock variance among plots. The plot should be large enough to contain an adequate number of trees per plot to be measured.

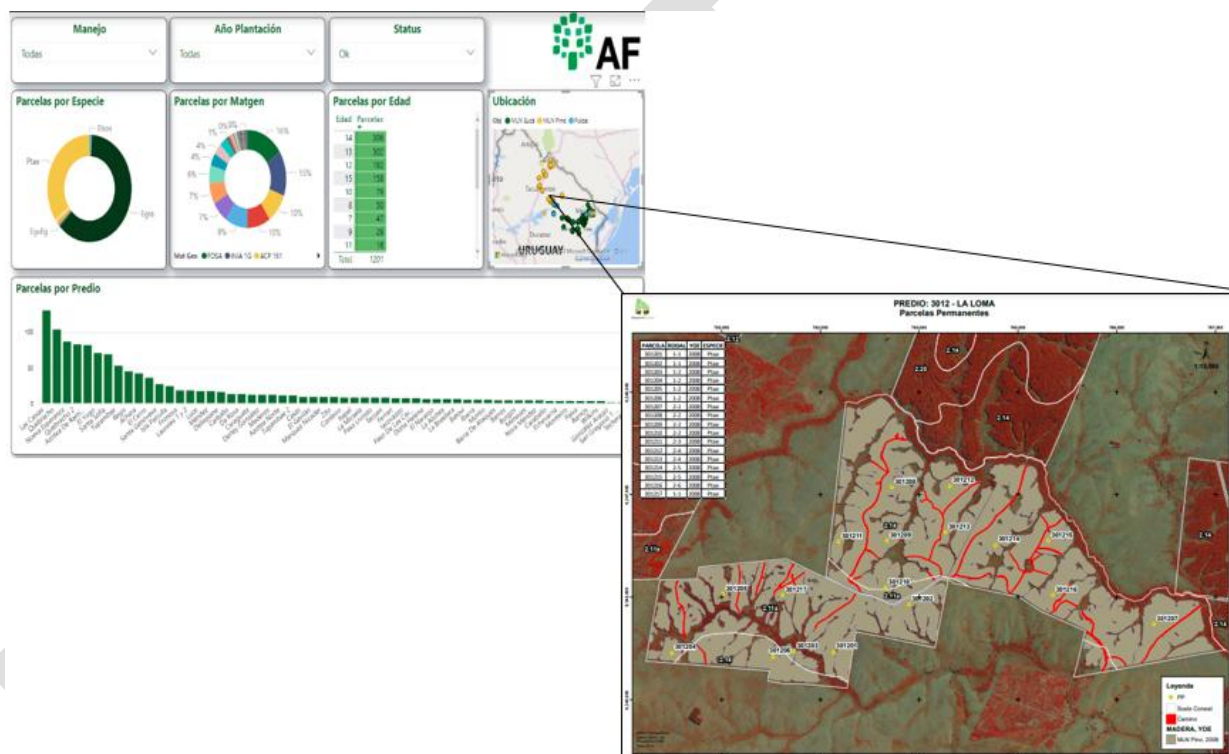
Due to the application of thinning, forest stands in this project have a low number of trees per hectare, tending to have a few large trees per hectare as the stands get older, and uniformly distributed. Thus, taking into consideration the project-specific conditions and the IPCC guidance, circular plots of 300 m² have been selected for monitoring of stratum with *Eucalyptus dunnii* (not thinned, higher density throughout the rotation), 800 m² for stratum with *Eucalyptus grandis* and 500m² for Pinus stratum.

Permanent sampling plots are used to measure and monitor changes in carbon stocks from the most relevant carbon pools over time. These are considered to be more efficient for estimating changes in carbon stocks by filtering out any variance due to plot effect. The plots will be located

with GPS and same treatment is assured, in the same way as all the project extension (e.g. during site and soil preparation, weeding, fertilization, harvesting, etc.) and are prevented from being deforested over the crediting period.

The number of sample plots was first estimated according to the “Calculation of the number of sample plots for measurements within A/R CDM project activities” tool, later during the first verification the number changed and increased. During this verification period, the number monitored is 258.

An example of Power BI dashboard where all permanent plots information is managed is available in figure 6.



Further information about the inventory, stratification, sampling, data collection, etc. is available in BDU Forest Management Plan and Forest Inventory Manual⁷⁰.

Once the plot was located, the coordinates were registered in the GPS and recorded in the spreadsheet. Afterwards, the previously defined circular plot area was installed. The center of the plot corresponded to the midpoint between two trees (1 per row, faced) and in between. These two trees were marked with the corresponding plot number and the letter "C", from where the plot was delimited, identifying those trees that are on the plot edge.

The next step included marking every tree that was within the plot. The first tree in the plot is the one furthest to the left of the plot, based on how the operator arrived at the site, and this is marked with the number 1. The numbering was then carried out as follows: starting from tree 1, the trees to the right to the end of the plot in that row are numbered. Then it's the turn for the next row above, to finish the semicircle on the side of tree 1. Then, the same procedure was repeated on to the other side of the plot.

Measurement

Each source of GHG emissions/removals is estimated ex post according to the equations previously described and based on the following methods and monitored parameters:

- CTREE (carbon stocks in above and below ground biomass of trees): will be estimated based on stratified random sampling method as described. For this purpose, VTREE (stem volume of tree) will be calculated applying a manual of procedures developed for local conditions, based on diameter at breast height (DBH) and height (H) measurement in each plot.
- DBH measuring: By convention, the diameter is measured at 1.30 m from the ground level, so this measure remains standardized independently of the operator and its height. At this height the instrument is also easy to manage. The DBH is a direct measure from which it is possible to calculate the transverse area, the basal area, the individual and total volume, the growth and the form quotient of the tree, and other variables of interest. In the estimating processes that involve the use of regression functions, the DBH is always the first independent variable because of its easy assessment and for presenting normally a high correlation with the volume, weight and other dependent variables.
- H measuring: The height of a tree or portion of it is the linear distance along its principal axis, departing from the ground up to the top or up to another referential point, always in conformity with the type of height that is needed to measure. The height serves essentially for the calculation of volume and for the calculation of increases in height and in volume. Total Height refers to the distance between the ground and the apex along the principal axis.

Data processing

⁷⁰ Available to VVB during verification in shared folder "Forest management"

Once the data has been collected in the field, the contractor must send them by email specifying the type of inventory carried out, establishment surveyed, number of plots and location in kmz format. This data is sent in the electronic spreadsheet (see figure 7) according to the type inventory, in a neat and orderly manner, previously verified that the data does not present errors or repetitions. All those doubts or modifications that arose during monitoring out in the field are clarified in the column called "comments".

The data obtained in the field during monitoring was then revised, processed and analyzed by the forest planning team in charge of inventories (Daniel Romero y Camila Gomez). In case of finding any inconsistency or doubt, a field check was performed when necessary.

Once the data was reviewed, it was processed using the data processing system Caliper [<https://webapp.avlchile.cl/caliper/caliper.dll>]. It is a software for processing forest inventories that calculates dasometric variables and other variables defined by the user.

In addition, it has a module called "Validator", which allows a review of the consistency of the data, detecting possible inconsistencies in the values that could affect the results. In case of detecting inconsistencies, they are analyzed and evaluated prior to processing.

After processing the data with the configured and established parameters, the software generated an inventory report made with all the information for analysis (these results are presented at product, log, tree, parcel or stand level).

Finally, the results obtained at the stand level were uploaded to the Forest Management System INFLOR [<https://af.inflor.cloud/sgf/>], generating a database with which reports are made both for volume estimates for carbon sequestration estimates and support for the forestry and strategic planning of the company.

NRO_INVENT	FECHA_INV	PREDIO	ID_PREDIO	ANO_PLAN	MODAL	SUP_MODAL	PARCELA	SUPPARCELA	N° Arbol	Especie	DAP	Alt Total	Calidad	HCalidad	UTM_N	UTM_E	Marcados	Sanidad	Forma	Daño	Comentarios
									1												
									2												
									3												
									4												
									5												
									6												
									7												
									8												
									9												
									10												
									11												
									12												
									13												
									14												
									15												
									16												
									17												
									18												
									19												
									20												
									21												
									22												
									23												
									24												
									25												
									26												
									27												
									28												
									29												
									30												
									31												
									32												
									33												
									34												
									35												
									36												
									37												

ESPECIES	
CODIGO	DESCRIPCIÓN
1	E.dunnii
2	E.smithii

NOMENCLATURA	
CODIGO	DESCRIPCIÓN
PREDIO	Código del predio
ID_PREDIO	Nombre del predio
SUPPARCELA	300;500;800;1.000
DAP	Milímetros
Alt. Total	Decímetros
UTM N	7 dígitos
UTM E	6 dígitos

Figure 7. Spreadsheet used during monitoring by contractor.

QA/QC procedures

The implementation of the monitoring plan includes a QA/QC system to minimize errors in measurement and data analysis, and to provide documentation and consistency in data archiving. Quality Assurance measures are implemented, in order to verify that data quality objectives are met, and in general, to support the effectiveness of the QC system. QA/QC plan includes some activities aiming at achieving accuracy and precision of data, and transparency of procedures are:

- Development of Standard Operating Procedures for field measurements, clearly defining objectives, admissible and inadmissible errors during monitoring, procedures, and responsibilities⁷¹;

⁷¹ Forest Inventory manual available for VVB during verification in shared folder "Forest management"

- Training of personnel in field measuring and hiring experienced technicians for the task;
- Assure periodical check and maintenance of measuring instruments: all mechanical, optical and electronic instruments will be periodically checked by qualified personnel;
- In addition, consistency on field data will be permanently monitored, in order to detect any error.
- Fully document and archive field and processed data: to ensure data preservation, all relevant monitoring documents (data, data analyses, static factors, photos, images, GIS output and other data) will be stored in electronic and/or paper format and back-ups will be done periodically.

During the execution of the monitoring activities, quality controls were carried by AF in the field, without previous notice. The quality of the measurement carried out is controlled with an intensity of 10% of the plots measured, using the same data collection sheet.

The following aspects are evaluated:

- Location: the plot must be clearly identifiable and agree with the defined geographic location.
- Identification: the plot must be correctly marked with a stake and trees must be correctly numbered.
- Total height: differences of more than 5% in height measured with clinometer will not be accepted.
- DAP: differences greater than 3% in the DAP measured with diametric tape will not be accepted.

In those cases where the errors were greater than does admissible, the contractor had to re-measure 100% of the plot.

Another measure in place for permanent plots is the “buffer area”. The establishment of buffer areas in permanent plots is intended to avoid edge problems, wind damage, accidental extraction of trees, pathways, etc. and allows destructive sampling of trees for various purposes without altering the measurement plot itself. The buffer area consists of 1.56ha whose center is the plot itself [square area of 125 * 125 m. sideways].

Further information about QA/QC is available in AF Forest Management Plan⁷².

Operational and management structure

Entity applying monitoring plan: Agroempresa Forestal S.A

Phone: +598 2916 2020

⁷² Available for VVB in shared folder “Forest Management”

www.AF.com.uy

Monitoring event was developed by Pal Monte SAS. Entity applying monitoring event in 2021 – 2024.

Carbon estimations and general calculations were developed by ProSustentia SAS

Phone: +5491136338125

www.prosustentia.com

3.1.4 Dissemination of Monitoring Plan and Results (VCS, 3.18; CCB, CL4.2)

Along with the project implementation, the project documentation will be published on VCS and CCB website for all stakeholders, so that they can obtain the detailed project information and development progress. Also, the project's information is available in local language at BDU III website. This includes management and monitoring plans.

Results from climate monitoring analysis will be available on BDU III website together with updated risk analysis at specific brochures describing the project characteristics and benefits.

Moreover, different communications are made publicly in the media regarding carbon certification of the project⁷³.

3.2 Quantification of GHG Emission Reductions and Removals

3.2.1 Baseline Emissions (VCS, 3.15)

As demonstrated during VCS validation, the baseline scenario is the continuation of extensive cattle breeding. This means that the project area without the project activity would have remained as pasture land. This pasture land covers virtually all the project area. Existing trees constitute buffer zones and they do not form part of the VCS project boundary. It is clear that there were no trees in the baseline scenario of the VCS project. Therefore, changes in carbon stock of above-ground and below-ground biomass of non-tree vegetation could be conservatively assumed to be nil in the baseline scenario based on the tool 14 "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities".

Likewise, it is expected that the dead wood and litter carbon pools will not increase in the baseline. Finally, the change in carbon stock in SOC may be conservatively assumed to be nil since it is unlikely to increase in the baseline (extensive grazing).

⁷³ Radio, local newspaper and events where project's communication regarding carbon credits takes place.

In summary, since continuation of an activity that has been applied without changes for more than 20 years has been selected as the baseline scenario and the degradation of land has been evidenced during VCS validation it is assumed, in agreement with IPCC Good Practice Guidance for Land Use, Land Use Change and Forestry (2003) that the net GHG removals by sinks in the baseline equals zero.

3.2.2 Project Emissions (VCS, 3.15)

‘Forteko S.A.’ project activity does not have GHG emissions. However, this chapter refers to the removals of GHG performed by this project activity.

Net anthropogenic GHG removals by sinks are estimated as the actual net GHG removals by sinks minus the baseline net GHG removals, minus leakage. The following general formula described in the methodology AR-ACM0001 (equation 8) is used to calculate the net anthropogenic GHG removals by sinks of an A/R project activity, in t CO₂-e:

$$C_{AR-CDM} = \Delta C_{ACTUAL} - \Delta C_{BSL} - LK$$

Where:

C_{AR-CDM} = Net anthropogenic GHG removals by sinks; t CO₂-e.

ΔC_{ACTUAL} = Actual net GHG removals by sinks; t CO₂-e.

ΔC_{BSL} = Baseline net GHG removals by sinks; t CO₂-e.

LK = Total GHG emissions due to leakage; t CO₂-e.

The actual net greenhouse gas removals by sinks were estimated using the following equation described in the methodology:

$$\Delta C_{ACTUAL} = \Delta C_P - GHG_E$$

Where:

ΔC_{ACTUAL} = Actual net greenhouse gas removals by sinks; t CO₂-e.

ΔC_P = Sum of the changes in above-ground and below-ground tree biomass, dead wood, litter and soil organic carbon stocks in the project scenario; t CO₂-e.

GHG_E = Increase in GHG emissions as a result of the implementation of the proposed A/R CDM project activity within the project boundary; t CO₂-e.

The following formula described in the methodology is used in order to estimate GHG emission:

$$GHG_E = \sum_{t=1}^{t^*} GHG_{E,t}$$

Where:

GHG_E	= Increase in GHG emissions as a result of the implementation of the proposed A/R CDM project activity within the project boundary; tCO ₂ -e
GHG_{E,t}	= Increase in non-CO ₂ emissions due to biomass burning of existing vegetation as part of site preparation in year t; tCO ₂ -e
t*	= .1,2,3....., t* years elapsed since the start of the A/R CDM project activity

The tool for “Estimation of non-CO₂ GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity” has been considered. The use of fire for site preparation and/or to clear the land of harvest residue prior to replanting is specifically excluded from the project management and therefore project emissions are estimated as zero.

In addition, no non-CO₂ emissions resulted in this period.

Carbon stock changes

ΔCP is the sum of the changes in above-ground and below-ground tree biomass, dead wood, litter and soil organic carbon stocks in the project scenario. For ex-ante estimation, all pools were accounted.

Following is presented the equation for the estimation of ΔCP. Calculations are described below.

$$\Delta C_P = \Delta C_{TREE} + \Delta C_{DW} + \Delta C_{LI} + \Delta C_{SOC}$$

Where:

Δ C_P	= Change in carbon stock in all selected carbon pools in the project scenario, tCO ₂ -e
Δ C_{TREE}	= Change in carbon stock in tree biomass in project, as estimated in the tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities”; tCO ₂ -e

ΔC_{DW}	= Change in carbon stock in dead wood biomass in project, as estimated in the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”; tCO ₂ -e
ΔC_{LI}	= Change in carbon stock in litter biomass in project, as estimated in the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”; tCO ₂ -e
ΔC_{SOC}	= Changes in carbon stock in SOC in project, in areas of land meeting the applicability conditions of the tool “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities”, as estimated in the same tool; t CO ₂ -e

Biomass carbon pools

Above and below ground biomass have been estimated according to the tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activity”. Carbon estimations in trees are based on field measurements of monitored parameters, chapter 3.1.3 of the Monitoring Report. Estimations are archived as part of the project verification and will be available for the verification team.

The aboveground biomass corresponds to tree biomass, no shrubs are considered for estimation. The method used for estimating change in carbon stock in trees is the “stock change method”. Change in carbon stock in trees in two successive points in time is calculated as the difference between the two estimated stocks.

As in ex-ante estimations, the following equations were used in order to estimate above and below ground biomass ex-post measurements:

$$B_{TREE,j,p,i,t} = V_{TREE,j,p,i,t} * D_j * BEF_{2,j} * (1 + R_j)$$

Where:

$B_{TREE,j,p,i,t}$ = Biomass of trees of species j in sample plot p of stratum i at late 2024

$V_{TREEj,p,i,t}$

= Stem volume of tree species using field measurements of tree parameters (DBH and height), default values (tree shape factor) and complemented with worksheets data processing (interpolation of not-measured heights); m³.

Stem volume of tree l of species j in sample plot p of stratum i, estimated from the tree dimension(s) as entry data into a volume table or volume equation; m³

Vtree

Aboveground biomass is calculated based on Bruce et al (1968) regression models (taper function) and the volumetric equation expressed below. The equations were updated from PDD in line with the calculations during forestry inventories:

Bruce et al (1968) taper function is used based on the parameters for each species:

$$\frac{dwb_{(h)}^2}{DBH_b^2} = b_1 * X^{1,5} + b_2 * (X^{1,5} - X^3) * DBH_b + b_3 * (X^{1,5} - X^3) * H + b_4 * (X^{1,5} - X^{32}) * H * DBH_b + b_5 * (X^{1,5} - X^{32}) * H^{0,5} + b_6 * (X^{1,5} - X^{40}) * H^2$$

Where:

- dwb_(h) = diameter (cm) without bark, measured at stem height (m)
- DBH_(b) = diameter (cm) with bark at breast height, 1,3m from ground
- H = total height (m)
- h_j = height (m) from ground to diameter g_j (j=1,...n)
- X = (H-h_j) / (H-1,3)
- b_i = parameters estimated for each species (i=1, ...6)

Parameter	Egrandis	Edunnii	Pinus
b1	0,88612	0,79307	0.7954000000
b2	-0,01139	-0,01139	-0.0245400000
b3	0,01628	0,01645	0.0601900000

b4	-0,00008	-0,00002	0.0000014200
b5	-0,00137	0,00272	0.0107100000
b6	0,00004	-0,00006	-0.0001527000

The universal volumetric equation by smalian used is:

$$V_{tree} = DBH * DBH * 0.785 * H$$

Where:

- V_{tree} = Total volume without bark (m3)
- DBH = Diameter (cm) extracted from Bruce et al. equation
- H = Height (cm) equal to 1cm

The next step is to add each section calculated and apply factor to include total volume with bark.

According to the methodology, for ex-post estimation, the volume equation used must be demonstrated to be appropriate for the purpose of estimation of tree biomass by applying the tool “Demonstrating appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities”. The appropriateness of the equations is demonstrated through the satisfaction of the following conditions, in the sense that the formula is very generic and applicable in any case:

- The equation is used both in the national forestry inventory of Uruguay, and
- The equation has been used in the commercial forestry sector in Uruguay for 10 years or more.

Moreover, the parameters for the regression equation are obtained from studies conducted within the project area, farms owned by BDU and neighboring companies, with variables derived from a data set of more than 50 trees and in line with the conditions stated in A/R Methodological Tool “Demonstrating appropriateness of allometric equations for estimation of aboveground tree

biomass in A/R CDM project activities” V. 1. Information on the procedures are detailed in the Agroempresa Forestal Forest Inventory Manual, section 11⁷⁴.

D_j

Basic wood density of tree species j . Species j corresponds to *Pinus* sp., *Eucalyptus grandis* and *dunnii*, with a basic density of 44 t.d.m./m³ for *Pinus* and values from 38 to 49 t.d.m/m³ according to age for *Eucalyptus*. This parameter was established as “available at validation” in the Project Design, but as new species were included in the project activity the parameter is further detailed.

The value for *Pinus* was obtained and corresponds to default value for *Pinus pinaster* in IPCC LULUCF Good Practice Guidance (2003), Table 3A.1.9-1. As also established in the validation report, the applied value is also midrange in values for loblolly pine wood density published by Oregon State.

The value for *Eucalyptus* is calculated based on information by ACHUGAR, L. et al. (2003)

$BEF_{2,j}$

Biomass expansion factor for conversion of stem biomass to above-ground tree biomass, for tree species j ; dimensionless. The BEF_2 is to be used in connection to growing stock biomass data and not with increment data, as described in chapter 3.2 of the GPG for LULUCF (2003). The value for ex-ante estimation considered available at validation is not monitored, it ranged from 3.4 (for young forest) to 1.15 (mature forests) for *Pinus*, and 3.2 to 1.15 for *Eucalyptus*. The exact values applied for different plantation dates are reported in the final worksheet for carbon stock projection. In the case of ex-post estimation, the default value recommended by methodology, 1.15 will be used in case biomass does not include branches biomass. In the case of Forteko, according to the technical team, the biomass provided by the system includes branches biomass, so $BEF_{2,j}$ is not used in this monitoring period.

R_j

Root-shoot ratio for tree species j ; dimensionless. The values applied for ex-post estimation were taken from the suggested equation from the tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs”:

⁷⁴ Forest Inventory manual and associated information available for VVB during verification in shared folder “Forest management”.

$$R = \frac{\exp[-1.085+0.9256 \times \ln(A)]}{A}$$

Where A is aboveground biomass content (t.d.m./ha). The aboveground biomass was calculated per year of plantation and different values were obtained.

In the case of ex-ante estimations, the default values from table 3A.1.8 from GPC for LULUCF (2003).

Following paragraphs 23 to 31 (equation 5, 6, 7, 8, 9, 10, 11 and 12) of the tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs", the total tree biomass and the uncertainty of the mean tree biomass per hectare within the project boundary is estimated.

Finally, the carbon stock in tree biomass within the project boundary is estimated as follows:

$$C_{TREE} = \frac{44}{12} * B_{TREE} * CF_{TREE}$$

Where:

C_{TREE} = Carbon stock in tree biomass within the project boundary; t CO₂-e.

B_{TREE} = Biomass of trees within the project boundaries.

CF_{TREE} = Carbon fraction of tree biomass; 0.47 t C
td.m-3.

Soil organic carbon

Estimates of soil organic carbon (SOC) stocks were done in accordance with the "Tool for the estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activity" V.1.1. As suggested by the tool, it is assumed that the implementation of the project activity firstly decreases the SOC content of the lands from the pre-project level due to the site preparation. Afterwards, the SOC increases to the level that is equal to the steady-state SOC content under native vegetation. The increase in SOC content in the project scenario takes place at a constant rate over a period of 20 years from the year of planting. The project meets the applicability conditions of this tool -as demonstrated in validation since the areas of land to which the tool is applied do not fall into wetland category, do not contain organic soils and are not subject to any of the land management practices and application of inputs listed in the tool.

Litter remains on site and is not removed and soil disturbance is in accordance with appropriate conservation practices, limited to site preparation and not repeated within 20 years.

Table 5. Parameters used for estimation of Soil Organic Carbon (SOC).

Parameter	Symbol	Value	Source (SOC estimation tool, V01.1.0)
Reference SOC (tC/ha)	$SOC_{REF,i}$	88	Table 3 HAC soils, warm temperate
Land use factor	$f_{LU,i}$	1	Table 6 All permanent grassland
Management factor	$f_{MG,i}$	0.70	Table 6. Severely degraded grassland. Lands are identified as degraded lands using the "Tool for the identification of degraded or degrading lands for consideration in implementing CDM A/R project activities"
Input factor	$f_{IN,i}$	1	Table 6 Grassland without input of fertilizer

SOC at the beginning of the project ($SOC_{INITIAL,i}$) is estimated by multiplying the factors in Table 5 by the reference SOC. As per the tool, a loss in SOC ($SOC_{LOSS,i}$) is applied in the case that soil disturbance occurs on more than 10 per cent of the land area, which is the case of Forteko project. The following methodological formula is used for calculating the annual change in SOC stock:

$$dSOC_{t,i} = \frac{SOC_{REF,i} - (SOC_{INITIAL,i} - SOC_{LOSS,i})}{20}$$

Where:

$dSOC_{t,i}$ = The rate of change in SOC stock in stratum i of the area of land, in year t; t C/ha/yr.

$SOC_{REF,i}$ = Reference SOC stock corresponding to the reference condition in native lands by climate region and soil types applicable to stratum i of the area of land; tC/ha.

The correspondent carbon sequestration calculation is presented to the verification team in the total carbon stock estimation worksheet.

Litter and Dead Wood

Estimations were done in accordance with the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities” using a default and conservative value of 8% and 4% of carbon stock in tree biomass for dead wood and litter respectively.

3.2.3 Leakage Emissions (VCS, 2.5, 3.2, 3.6, 3.15, 4.3)

According to the methodology, the following types of leakage emissions can occur: GHG emissions due to activity displacement, the activity displaced being agricultural activities. Therefore, leakage is estimated as follows:

$$LK = \sum_{t=1}^i LK_{AGRIC,t}$$

Where:

LK

= Total GHG emissions due to leakage; t CO₂-e

$LK_{AGRIC,t}$

= Leakage due to the displacement of agricultural activities in year t, as calculated in the tool “Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity”; t CO₂-e

As it has been stated in PD document, the methodology requires the assessment of sources of leakage due to activity displacement (conversion from grazing land to forestry). Application of the tool “Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R DM project activity” led to the conclusion that this source can be neglected. The application of the “Guidelines on conditions under which increase in GHG emissions related to displacement of pre-project grazing activities in A/R CDM project activity is insignificant”, which is one of the applicability conditions of the tool, resulted in the conclusion that the project will not cause any displacement of the activity occurring before project implementation. The project accomplishes the following conditions:

(b) The total area expected to be displaced is more than 5% of the entire A/R CDM project activity or more than 50 ha, and the n – a ha (where “n” is the area in ha expected to be displaced and “a” is 5% of the total project area or 50 ha) are displaced to:

- i. Areas of land that can be identified as degraded or degrading.
- ii. Existing grasslands with the carrying capacity that allows for accommodation of the displaced animals during the entire period of displacement.

The total area to be displaced corresponds to the total area of the project 13,966.5 ha, meaning that the grazing area displaced is 100% and also more than 50 ha, then the value “n” – “a” is

13,966. – (5% of 13,966.5=698,325) = 13,298.2. This area, used for grazing cattle, can be identified as degraded.

(i) The grazing cattle displaced by Forteko's project will be to neighbor areas. One of the main explanations is that the project areas are not located in only one farm but in 4 different areas. It was already demonstrated that the project areas are degraded or degrading, and because the grazing animals are moved to neighbor zones (to control during on-site validation visits), the same conditions applies to this specific soil.

(ii) Moreover, the animals will be displaced only for 2 to 3 years and later returned to the same site. The silvicultural management practice does not permit the animals to be grazing at the same time with the small trees, to avoid any physical damages. When the trees are big enough, 2 or 3 years old, the animals are reintroduced. During the period when the animals are displaced, the grasslands to where they go have the carrying capacity, as seen in table 10 of the PD document, the majority of farms in the project area (64%) are dedicated to beef cattle production. In Uruguay 80% of the land is dedicated to grazing animals, and the displacement takes place to other parts of the properties of the project, outside the project area.

Moreover, condition (d) is also met, where:

d) The total number of animals expected to be displaced is more than 40 LSU, and the $n - 40$ LSU (where "n" is the total number of animals, expressed in LSU, which are expected to be displaced) are displaced to:

- i. Areas of land that can identified as degraded or degrading
- ii. Existing grasslands with the carrying capacity that allows for accommodation of the displaced animals during the entire period of displacement

v. Slaughterhouses

Option (i) and (ii) were already demonstrated above. Option (v) is also valid for the case of Forteko's project. This is a common practice in the cattle beef production in Uruguay.

Most of the supporting evidence for the above paragraph demonstration can be obtained through the observation of the Uruguayan farms and it's cattle production system during on-site validation.

Beyond all, we believe the application of the tool "Estimation of the increase in GHG emissions attributable to the displacement of pre-project agricultural activities in A/R CDM project activity" is not necessary. The application of the "Guidelines on conditions under which increase in GHG emissions related to displacement of pre-project grazing activities in A/R CDM project activity is insignificant", which was superseded by the previously mentioned tool, resulted in the conclusion that the project will not cause any displacement of the activity occurring before project implementation.

Beef cattle breeding (cow-calf) was the dominant activity in the pre-project land (Eastern hilly areas of Uruguay). Cattle were based on a breeding herd where heifers are mostly placed with bulls at the age of 3 years. Sales include culling cows to be fattened, surplus heifers, and calves (at weaning). Average production is 33 kg per ha per year.

Considering the area subject to be afforested represents only 45-50% of the total area owned by the project participant (lowlands, biological corridors, roads, rocky areas, settlements, among others, complete the rest of the land use), the displacement of grazing activity can be considered neglected because:

- Uruguayan grazing activity is completely associated with forestry. A larger amount of cattle, more than what is usual, is put within the project area during some months to substantially reduce the amount of above ground biomass minimizing the use of glyphosate (herbicides for site preparation) during site preparation for the forest establishment.
- During site preparation and for a maximum of two years after forest establishment, cattle is put apart in similar areas (commonly in neighbors farms) to prevent cattle from harming the small trees. During the period in which cattle loss the winger part of leather, it is very common the animal uses fences or trees to scratch. After these two years cattle is reintroduced and managed in a silvopastoral system with trees (both activities complement each other). The impact of cattle displacement is reduced to two years over thirty year rotation.
- The total area under project activity is not afforested in the same year, first areas were planted in 2007, and the last ones in 2012 and then some of the farms were replacement of species took place were reforested in 2017 and onward.

The impact of this staggered plantation plan substantially reduces the eventual grazing displacement, cattle that has to be moved to other areas can be put in farms that were not afforested or in areas that has more than two years with forestry owned by Forteko.

It is important to emphasize that the area that comprises Forteko´s boundary was not planted all at the same time, so animals are displaced gradually to other lands, following the sequence of plantations.

- Silvopastoral production is conducted during eighteen and ten years of rotation period. Silvopasture combines trees with forage and livestock production. The trees are managed for high-value saw logs and, at the same time, provide shade and shelter for livestock and forage, reducing stress and increasing forage production
- During one and a half year – maximum two – cattle are put in existing grasslands with the carrying capacity that allows for accommodation of the displaced animals during this period of displacement. These are areas with no forest (80% of Uruguayan surface is pasture) meaning that deforestation never occurs when introducing cattle in farms. And these areas can be identified as degraded.

· Existing cattle in the pre-project situation may either stay within project boundaries or in an area controlled by project participant or be sold to the market (calves and surplus heifers are normally sold in the market for fattening on other grazing areas, while cows, heifers and a reduced number of bulls are sold to slaughterhouses). It is Forteko's policy that landowners can continue with their activities for a certain period after the purchase of the land, so that they have time to reduce the population of their cattle. In some cases, they may even stay in the land.

Furthermore, according to data gathered from governmental Livestock Controller Division (DICOSE)⁷⁵ there has been a smooth increase in the beef cattle number of heads at a national level.

On the other hand, according to data taken from National Forest Directorate (DGF)⁷⁶ forest plantations have also been increasing for the same period of time (Figure 8). In addition, native forests have also been increasing in terms of area in the last 43 years at the national level. According to National Forest Inventories (2010) and to the first native forest monitoring of 1980⁷⁷ native forests have increased 26% in terms of area. The fact that total forest area and amount of livestock have been increasing is evidence that project activity does not result in displacement of the previous productive system. Therefore, leakage is assumed to be zero.

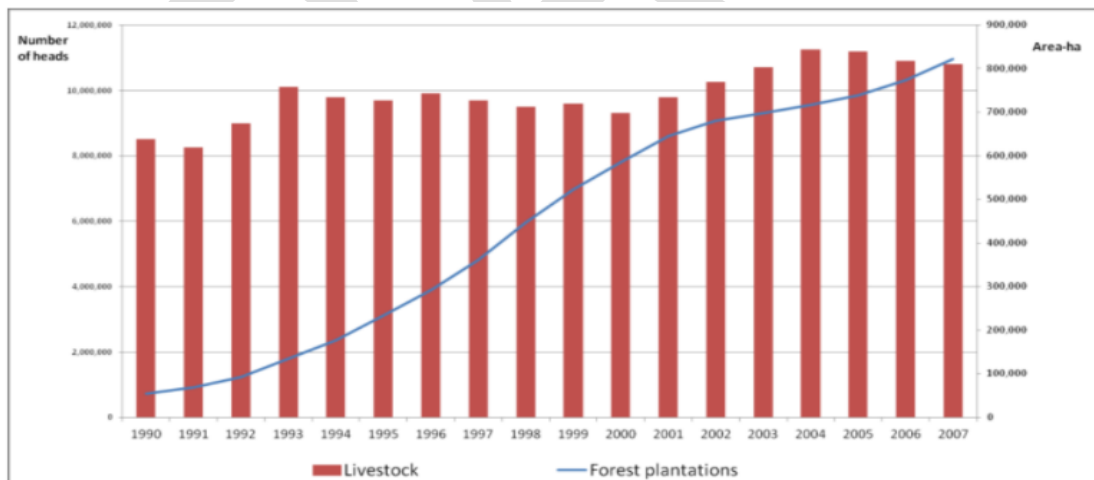


Figure 8: Blue curve shows the evolution of grassland area converted to forest plantations. Red bars show the number of cattle heads each year. Statistics were taken from official sources at a national

⁷⁵ https://www.inac.uy/innovaportal/file/10495/1/pi_modulo_introductorio_web.pdf slide 8

⁷⁶ Sistema de Información Forestal. Dirección General Forestal (MGAP) Registro Nacional de Bosques de 1975 a la fecha. Cartografía Forestal Nacional Año 2000. DGF/RENARE-MGAP. Available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/2020-10/Informe%20final.pdf>

⁷⁷ 1er Carta Forestal Nacional 1980. Dirección Forestal, Parques y Fauna – MGAP value available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/2020-10/Informe%20final.pdf>

scale.

3.2.4 GHG Emission Reductions and Carbon Dioxide Removals (VCS, 3.15, 4.1)

State the non-permanence risk rating (%)	12%
Has the non-permanence risk report been attached as either an appendix or a separate document?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For ARR and IFM projects with harvesting, state, in tCO ₂ e, the Long-term Average (LTA).	4,997,728
Has the LTA been updated based on monitored data, if applicable?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
State, in tCO ₂ e, the expected total GHG benefit to date.	9,238,511
If a loss occurred (including a loss event or reversal), state the amount of tCO ₂ e lost:	No loss event took place

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Buffer pool allocation (tCO ₂ e)	Reductions VCUs (tCO ₂ e)	Removals VCUs (tCO ₂ e)
26-Sep-2021 to 31-Dec-2021	0	-699,284	0	83,915	-	615,369
01-Jan-2022 to 31-Dec-2022	0	- 2,797,138	0	335,657	-	2,461,480
01-Jan-2023 to 31-Dec-2023	0	- 1,240,547	0	148,866	-	1,091,681
01-Jan-2024 to 26-Aug-2024	0	- 73,560	0	8,828	-	64,732

Total	0	- 4,810,529	0	577,266	-	4,233,262
-------	---	-------------	---	---------	---	-----------

Given the LTA value is reached during this monitoring period the eligible VCUs is less than that monitored. As shown below, the maximum amount of VCUs to be emitted during this monitoring period equals 503.136 VCUs of vintage 2021.

Year/pool	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)	VCUs eligible for issuance before buffer pool allocation	Buffer pool allocation	VCUs eligible for issuance
26-Sep-2021 to 31-Dec-2021	0	-699.284	0	699.284	571.746	68.609	503.136
1-Jan-2022 to 31-Dec-2022	0	-2.797.138	0	2.797.138	0	0	0
1-Jan-2023 to 31-Dec-2023	0	-1.240.547	0	1.240.547	0	0	0
1-Jan-2024 to 26-Aug-2024	0	-73.560	0	73.560	0	0	0
TOTAL (adjusted)	0	-4.810.529	0	4.810.529	571.746	68.609	503.136

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
26-Sep-2021 to 31-Dec-2021	333,941	699,284	209 %	Due to species replacements, ex-ante projections may differ greatly.
01-Jan-2022 to 31-Dec-2022	1,122,407	2,797,138	249 %	Due to species replacements, ex-ante projections may differ greatly
01-Jan-2023 to 31-Dec-2023	612,555	1,240,547	203 %	Due to species replacements, ex-ante projections may differ greatly
01-Jan-2024 to 26-Aug-2024	-70,977	73,560	204 %	Due to species replacements, ex-ante projections may differ greatly
Total	1,997,926	4,802,410	240 %	Due to species replacements, ex-ante projections may differ greatly

3.3 Optional Criterion: Climate Change Adaptation Benefits

Not applicable as the project has not validated at the Gold Level for climate change adaptation benefits.

3.3.1 Activities and/or processes implemented for Adaptation (CCB, GL1.3)

Not applicable as the project has not validated at the Gold Level for climate change adaptation benefits.

4 COMMUNITY

4.1 Net Positive Community Impacts

4.1.1 Community Impacts (CCB, CM2.1)

As previously mentioned, periodic surveys to the community allow to identify the forestry activity impacts on the communities. In this line the impacts analyzed include: impact on local jobs, community well-being, employees respect for local communities culture, environment conservation, among others.

Moreover, the Company interacts with the community in accordance with the criteria of Social Responsibility and assuming its role as a neighbor. Through socio-cultural studies, possible interactions are identified, for example:

- a) Generation of manpower and use of local services.
- b) Collaboration with educational activities (presentations, collaborations, etc.).
- c) Talks on forest fire prevention and care for the environment in schools and high schools in the areas of influence, whether rural or urban.

As a result of the project activity an increase in the creation of jobs in an area with high unemployment and high poverty rates is observed with more than 666 jobs generated (with 27 estimated to be women). In the case of the project, all workers are annually trained on FSC principles and criteria, AF policies, working security as well as others providing experience of forest planting and sustainable forest management in degraded grasslands in connection to HCV areas. The forest activity in Uruguay causes an increase in the number of jobs compared to extensive farming activity, as well as job quality, since forestry wages are typically higher than other activities rural areas. These will contribute to the attenuation or reversal of the phenomenon of population

migration from the project zone to urban and other areas of the country. Moreover, the development of services in the towns next to project area is expected to increase due to project activity.

In addition, there is a tendency in the country that forestry workers return home after each workday, which is a big improvement in respect to livestock, which strongly depends on the residence workers on farms, far from their families.

On the other hand, the gross value of production per unit land area will increase between 6 to 8 times compared to extensive livestock farming. Forestry produces an increase in tax revenue. Biomass production and energy resource is of high strategic value for Uruguay, the project will increase supply of forest residues, which is considered a security for the country in terms of energy sources.

Regarding each community group impacts have been identified:

Community group	Cattle breeders
Impact	Temporary relocation of activities, changes in the beef cattle breeding system (to silviculture)
Type of benefit/cost/risk	Actual and predicted impacts beneficial to the cattle breeders (with temporary inconveniences related to temporary relocation)
Change in well-being	<p>Changes towards silvicultural activities have shown to bring benefits to cattle animals in comparison to grassland breeding, this being the provision of shelter from high temperature weather and storms. Still, this change in activities include temporary relocation within the property, to avoid young plantation from being eaten, or broken by cattle.</p> <p>Moreover, with the objective of reducing fire risks, cattle breeders and neighbors are capacitated on fire prevention and care for the environment during talks and community work.</p>

Community group	Rural population
Impact	Increase in economic activities and demand for services in the area; improve of local communities well-being and livelihoods.
Type of benefit/cost/risk	A direct actual benefit is that Forteko has implemented a program to support and assist local communities, public schools, public entities (firefighters, police) or any stakeholders identifying

	<p>together problems solvable by the company, with donations of various types⁷⁸. From materials goods (firewood, tools, and school supplies), to staff time (educational presentations in schools, technical assistance and participation in productive projects). AF is committed to promote and enhance the well-being of the community.</p> <p>An indirect predicted benefit with the increase in the demand for services in the area, as a result of more activities taking place, is the generation of more jobs in different sectors⁷⁹. This value is expected to represent a 150% in relation to direct jobs generated by the project⁸⁰ meaning an improvement in the livelihood of 2,466 persons (considering direct and indirect jobs, including cattle breeders and beekeepers within the project boundary) of which 148 are estimated to be women⁸¹.</p> <p>Another direct benefit for rural communities' well-being is erosion control and HCV conservation.</p> <p>Impacts ratings are measured based on annual surveys to community</p>
Change in well-being	<p>Improvement given more people access jobs and training; conservation of environmental services. In this line, formal and informal training has reached 1,704 community members.</p> <p>The implementation of the project activity will result in an effective protection of the soil against erosion and in a reversion of the degradation by building up soil organic carbon. Soils will be disrupted only once each rotation cycle and site preparation will be based on strip tillage, with strips oriented perpendicularly to slope direction, and use of glyphosate herbicide to minimize the exposure the soil to erosion agents.</p> <p>The tree vegetation will completely protect the soil and at harvest, bark, leaves and branches will be left on the ground, thus minimizing any negative impacts of erosion by rainfall and soil degradation by harvesting machinery</p>
Community group	Forest producers and workers

⁷⁸ A complete and detailed list of donations is available for VVB during verification in shared folder "Community impacts"

⁷⁹ Based on the report by Ferrere (2017) "Contribución de la Cadena Forestal a la Economía de Uruguay" (see reference 34)

⁸⁰ Based on information from the report of Ferrer, 2017 (previous reference); where induced jobs from the forestry sector represented more than 150% of direct jobs in 2016.

⁸¹ Based on General Census 2011 values for population structure.

Impact	Increase in scale and demand for jobs and industries; management experience improvement
Type of benefit/cost/risk	Indirect predicted benefit given by economic studies ⁸²
Change in well-being	The project will contribute to create a development pole away from Montevideo and other areas which concentrate most of the economic activity in the country, with 1,644 direct and indirect jobs related to forestry activities, created in this MR, also increasing health conditions to the 747 new direct jobs generated.

Community group	Project forestry workers
Impact	Chemical management
Type of benefit/cost/risk	Identified direct potential risk – low significance (given the mitigation actions in place)
Change in well-being	Potential health risk

Community group	Rural school students and staff
Impact	Education improvements by upgrading education facilities that are child sensitive
Type of benefit/cost/risk	Actual direct benefit received by students and education institution staff
Change in well-being	This has been achieved through the project's donations to improve the school infrastructure and maintenance. It also includes talks on subject of interest to school authorities as: locally transmitted diseases, risk of locally present ophidians, flora and others ⁸³ . Both activities have reached 358 students during this MR.

4.1.2 Negative Community Impact Mitigation (VCS, 3.19; CCB, CM2.2)

⁸² Based on the report by Ferrere (2017) "Contribución de la Cadena Forestal a la Economía de Uruguay"

⁸³ A complete and detailed list of donations is available for VVB during verification in shared folder "Community impacts".

Forestry in Uruguay is considered of low risk as impacts can be reduced through mitigation actions, for this reason only an EIA is requested in case of plantations of more than 100ha in the same property or productive area (Law Decree N° 349/005). Category A, assigned to the project area, considers that the project only presents non-significant negative environmental impacts, within what is tolerated and foreseen by current regulations. The project area is in areas with soils categorized for forest plantation activities. The precautionary principle enables decision-makers to adopt precautionary measures when scientific evidence about an environmental or human health hazard is uncertain and the stakes are high, which is not the case for forestry activity in the project area.

Nevertheless, the effectiveness of management based upon precaution depends in large measure upon anticipation of impacts. Based on this theoretical assessment of the impacts identified as negative because of the planned interventions and related forest activities, the aim is to establish mitigation measures that will depend on each particular situation. Mitigation is understood as the design and execution of works, activities or measures aimed at moderating, attenuating, minimizing or diminishing the negative impacts that this project may generate on the human and natural environment.

The project impacts identified in the Environmental Impact Assessment are mitigated based on:

Impacts on personnel: the mitigation measures that result in a low risk weighting are: the mandatory use of PPE (shoes or rubber boots, overalls, nitrile gloves, respirator for organic vapors, cap and goggles in the case of transferring products to be filled, etc.) rubber boots, overalls, nitrile gloves, respirator for organic vapors, cap and goggles in the case of transferring products for filling goggle backpacks). It is also compulsory to have an applicator's license which implies going through a specific training course in the application of chemical products.

Roads and Routes: the company establishes that on rainy days it is forbidden to drive on unpaved roads to avoid road and routes deterioration.

Soil and water contamination by chemicals: there is an operating procedure in place for the correct use and care to be taken to avoid spills and contamination by limiting use, trained personnel in charge, among other actions.

Flora: operators will be trained in operational IT to prevent the product from contaminating the local flora.

To the extent that negative impacts are identified that could have a greater significance than foreseen, the necessary corrective measures will be taken immediately. These will depend on the specific situation in each case and will be evaluated by the management of the legal entity, the AF GROUP and the appointed technical advisors.

No elements have been established to determine or establish compensation measures to restore environmental impacts, given that they have not been identified in the production process of the properties that make up the AF GROUP. The following are some of the situations that could be found and the measures that could be taken in the event that they are found:

Gullies: if there are significant gullies, their surface area is measured and monitored to ensure that it does not increase. If this is the case, the area is measured and monitored to ensure that it does not increase, and if it does, it will be filled in or trees will be planted, selecting the most appropriate measure for each situation.

Erosion: planting lines should preferably be carried out perpendicular to the slope, if there is a longitudinal and transverse slope, it shall be cross slope, with drains/roads that allow for a change in the direction of the tillage so that there are no downhill furrows. The furrows should have a slight slope (2%), which is necessary to prevent the accumulation of water that would limit the growth of the trees.

Whenever possible, roads should not be used when they are wet, so as not to risk jeopardizing their preservation.

Water wells: in the water wells, physical and chemical analysis of the water is carried out and the water table is measured on a biannual basis.

Soil analysis: if necessary, soil analysis will be carried out at selected sites. This can be defined e.g. when plantations are monitored, and growth is found to be below expectations.

Harvesting: given that forest harvesting is the activity that potentially generates the greatest impacts, certain aspects to be considered after harvesting are recorded in the Harvest Environmental Monitoring Sheet.

Roads: given that forest harvesting is the activity that potentially generates the greatest impacts, certain aspects to be considered after harvesting are recorded in the Harvest Environmental Monitoring Sheet.

Moreover, the project area has management and monitoring plans in place for HCV and APIC areas to ensure the conservation of those areas identified, throughout the project's lifetime. Anyway, based on the description of Section 4.1.3 of project's PD, no HCVs were identified related to community well-being in the project area, and those within project zone will not be negatively impacted by the project activities as identified threats by the project's activities are of low impact and primarily within project area; moreover HCVs are conserved either by public or private entities.

In conclusion, the project's activity does not represent a significant threat to HCVs of community's well-being according to governmental regulation, the environmental impact assessment conducted or communities' communication with the PP. Anyway, different measures to avoid or minimize such threats are in place.

4.1.3 Net Positive Community Well-Being (VCS 3.19; CCB, CM2.3, GL1.4)

The main source of income for communities associated with agriculture in the project area is beef-cattle breeding (cow-calves). Production methods have been applied for the last 300 years (extensive production) and are affected by natural disasters such as droughts and floods. Overall, agricultural production is low. The project is benefiting communities economically and socially.

- 1) **Income improvement:** during the project period, the net income generated by the project includes generation of employment and increasing labor income
- 2) **Job creation:** the project provides permanent, temporary, direct and indirect employment opportunities.
- 3) **Enhance social cohesion:** project developers have generated a closer interaction channel, strengthening communication between communities, local/national governments and forestry contractors' companies.
- 4) **Technical training:** people from communities hired to develop forest activities are technically trained.
- 5) During the project implementation, it contributes to **areas conservation**.

Those impacts identified will be mitigated based on the procedures further described in the general Forest Management Plan.

All the previous benefits lead to the improvement in the well-being of 12,558 people (of whom 6,530 are estimated to be women). These values take into consideration those areas where direct and indirect jobs have been generated (generated and expected to have been generated), donations and development projects with the communities for the verification period. This is estimated then as the total population for the corresponding communities.

Evidence of the net positive impact of the project's activity is the results of the activity's rating by the stakeholders on the well-being, job generation and other variables analyzed in the annual community survey. These results are reported in section 4.3.1 of this report.

Those impacts identified will be mitigated based on the procedures further described in the general Forest Management Plan leading to net positive impacts.

4.1.4 Protection of High Conservation Values (CCB, CM2.4)

None of the HCV have been negatively affected by the project because they are either protected by national laws or voluntarily protected by the project proponent (for those within private lands). Almost all HCV related to community well-being are not located in the rural areas, but in towns, negligible being affected by the project activity.

If HCV for community are found within the project area, they'll be monitored and protected as mentioned in the BDU III project Management Plan. Forteko project is not affected or affecting HCV areas.

4.2 Other Stakeholder Impacts

4.2.1 Mitigation of Negative Impacts on Other Stakeholders (VCS, 3.18, 3.19; CCB, CM3.2)

It is well known that planting trees on a grassland site usually causes a reduction in the runoff and an increase in evapotranspiration. This might cause some competition for water with other users

(e.g. cattle farms located downstream in the watersheds, hydroelectric power generation, and water for human consumption). Some studies (e.g. Silveira et al., 2006⁸⁴) have shown that this effect is not significant in Uruguay at the medium-size watershed scale (due to high precipitation). At the micro-watershed level, this effect can be minimized by plantation design (e.g. by limiting the extent of forest plantations in a watershed)⁸⁵. The proposed project leaves at least 35-40% of the land area unplanted, which would greatly reduce the hydrological effects, as compared with a more common 25- 30% of unplanted area. In addition, since most of the project area flows into rivers with relatively high flow rate, no significant downstream effects are expected.

On the other hand, given the fact that climate change in Uruguay has increased precipitations and is expected to continue causing an increased frequency of extreme precipitation events associated with flooding⁸⁶ causing severe infrastructure damage and displacement of people from their homes, the establishment of forests acts as a factor attenuating such negative impacts, by moderating the runoff. This is in fact a project's positive environmental service. Given the fact that soil erosion will be controlled and that a minimal amount of agro chemicals will be used, no negative impacts on water quality is expected either.

Any potential negative impacts on the hydrological cycle processes will be minimized by: a) the design of plantations leaving areas without plantation, specifically avoiding sensitive areas; and b) the fact that the annual rainfall, and in particular during the spring-summer period, when usually water deficits occur, has been increasing over recent decades, and is expected to continue in the future, thus offsetting the expected decrease in runoff.

No other negative impacts have been identified on other stakeholders, but constant monitoring of project activities impacts will allow quick identification and opportunity for its mitigation.

4.2.2 Net Impacts on Other Stakeholders (VCS, 3.18, 3.19; CCB, CM3.3)

As previously analyzed, given the fact that climate change in Uruguay has been causing and is expected to continue causing an increased frequency of extreme precipitation events associated with flooding causing severe infrastructure damage and displacement of people from their homes, the establishment of forests acts as a factor attenuating such negative impacts, by moderating the runoff. Together with the mitigating actions, with proper forest design, instead of causing a negative impact on other stakeholders in terms of runoffs, the project presents a clear environmental service.

As there has not been identified other negative impacts, there is no need to anticipate their results.

⁸⁴ Silveira, L., Alonso, J., y Martínez, L. 2006. Efecto de las plantaciones forestales sobre el recurso agua en el Uruguay. Agrociencia (2006) Vol. X N°2 pág. 75-93

⁸⁵ Noretto, M. & Jobbagy, G. (2016) Análisis del impacto hídrico de la expansión forestal en cuencas de Uruguay at Sociedad de Productores Forestales Uruguay

⁸⁶ As mentioned in section III of: Giménez et al (2006) Cambio climático en Uruguay, posibles impactos y medidas de adaptación en el sector agropecuario. Serie Técnica N° 178, INIA

In order to evaluate that no net negative impacts on other stakeholders have taken place surveys are conducted not only with neighbours, but different stakeholders with different backgrounds, activities and relation to the project (including contractors and other interested parties) as mentioned. Moreover, during annual FSC certification, a wide array of stakeholders is interviewed and no complaints have arisen regarding negative impacts of the project, other than local impacts mitigated, such as rural road deterioration⁸⁷.

4.3 Community Impact Monitoring

4.3.1 Community Monitoring Plan (CCB, CM4.1, CM4.2, GL1.4, GL2.2, GL2.3, GL2.5)

The community monitoring plan includes a matrix where the different variables analyzed are monitored (monthly or annually according to indicator) and publicly available on BDU webpage to stakeholders in the form of summary monitoring reports, in local language.

Impacts on the communities' well-being is analyzed from the information collected through the annual survey conducted by AF (see section 2.3.9). The results for the verification period are reported in the annual summary monitoring reports mentioned where the rating for different forestry activity impacts is summarized. Other variables are systematically monitored using internal reports including working accidents, jobs generated, trained employees, water and soil quality, number of complaints resolved, contribution of project developer to communities in material assistance. Results for the verification period of some of the variables are reported below:

Cost/benefit/risk	Indicator	Monitoring frequency	Goal	Results for verification period																																			
Improvement of livelihoods of communities and stakeholders	Number of direct and indirect employees	Annual	Prioritize local hiring if needs are met	<table> <tr> <td></td><td>2024</td><td>143</td><td>172</td><td>316</td></tr> <tr> <td></td><td>2023</td><td>190</td><td>228</td><td>418</td></tr> <tr> <td></td><td>2022</td><td>225</td><td>270</td><td>494</td></tr> <tr> <td></td><td>2021</td><td>189</td><td>227</td><td>415</td></tr> <tr> <td>Employment</td><td>Direct</td><td>189</td><td>227</td><td>415</td></tr> <tr> <td></td><td>Indirect</td><td>227</td><td>227</td><td>415</td></tr> <tr> <td>Training</td><td>Total</td><td>415</td><td>415</td><td>415</td></tr> </table>		2024	143	172	316		2023	190	228	418		2022	225	270	494		2021	189	227	415	Employment	Direct	189	227	415		Indirect	227	227	415	Training	Total	415	415	415
	2024	143	172	316																																			
	2023	190	228	418																																			
	2022	225	270	494																																			
	2021	189	227	415																																			
Employment	Direct	189	227	415																																			
	Indirect	227	227	415																																			
Training	Total	415	415	415																																			
Improvement of technical capacities of communities and stakeholders	Number of trained people in forestry-related areas	Annual	100% forestry contracted companies should be trained every year	<table> <tr> <td></td><td>2024</td><td>143</td><td>172</td><td>316</td></tr> <tr> <td></td><td>2023</td><td>190</td><td>228</td><td>418</td></tr> <tr> <td></td><td>2022</td><td>225</td><td>270</td><td>494</td></tr> <tr> <td></td><td>2021</td><td>189</td><td>227</td><td>415</td></tr> <tr> <td>Employment</td><td>Direct</td><td>189</td><td>227</td><td>415</td></tr> <tr> <td></td><td>Indirect</td><td>227</td><td>227</td><td>415</td></tr> <tr> <td>Training</td><td>Total</td><td>415</td><td>415</td><td>415</td></tr> </table>		2024	143	172	316		2023	190	228	418		2022	225	270	494		2021	189	227	415	Employment	Direct	189	227	415		Indirect	227	227	415	Training	Total	415	415	415
	2024	143	172	316																																			
	2023	190	228	418																																			
	2022	225	270	494																																			
	2021	189	227	415																																			
Employment	Direct	189	227	415																																			
	Indirect	227	227	415																																			
Training	Total	415	415	415																																			

⁸⁷ FSC summary reports available for VVB during verification in shared folder "FSC".

Cost/benefit/risk	Indicator	Monitoring frequency	Goal	Results for verification period
Achieve exceptional community communication and participation throughout the project lifetime	Number of complaints resolved	Annual	100% of complaints should be answered and solved in line with procedures in place	2 complaints received answer and resolved during this verification period.
	Communities valorization of project communication procedures	Annual	Maintain values of good/very good results above 60%	Average for the period 70%
Improvement of communities well-being	Contribution of project developer to communities in material assistance	Annual	Contribute with communities with what is possible	6 schools benefited (painting, firewood, park maintenance, park game fixing) 3 community institutions (firewood, roads, etc.)
	Communities valorization of project improvement to community well-being	Annual	Maintain values of good/very good results above 60%	Average for the period 62%
Cattle breeders participation	Number of cattle breeders in properties	Annual	Maintain interaction with cattle breeders	42 cattle breeders
Maintenance of community HCV	Community HCV conservation status within premises	Annual	No HCV negatively impacted	No community HCV within the project area or impacted by project

Cost/benefit/risk	Indicator	Monitoring frequency	Goal	Results for verification period										
Mitigate workers health risks	N° of accidents/1million working hours	Monthly	Reduce accidents to 4 accidents every 1 million working hours	<table><caption>Accidents/1 million working hours</caption><thead><tr><th>Year</th><th>Accidents/1 million working hours</th></tr></thead><tbody><tr><td>2021</td><td>2.5</td></tr><tr><td>2022</td><td>6.5</td></tr><tr><td>2023</td><td>3.5</td></tr><tr><td>2024</td><td>4.5</td></tr></tbody></table>	Year	Accidents/1 million working hours	2021	2.5	2022	6.5	2023	3.5	2024	4.5
Year	Accidents/1 million working hours													
2021	2.5													
2022	6.5													
2023	3.5													
2024	4.5													

Regarding community HCV, non-have been identified within the project area. Those within the project zone have not been negatively affected by the project as they are either protected by national laws or voluntarily protected by private land owners. Almost all HCV related to community well-being are not located in the rural areas, but in towns, negligible being affected by the project activity. If HCV for community are found within the project area, they'll be monitored and protected as mentioned in the BDU III project Management Plan. In conclusion, the Forteko project is not affected or affecting HCV for community well-being.

4.3.2 Monitoring Plan Dissemination (CCB, CM4.3)

The monitoring plan and annual monitoring results are published on BDU III website for the whole Trust Fund and which can be consulted openly by stakeholders⁸⁸.

The summary of the Monitoring report in local language is presented to different stakeholders during face-to-face presentations organized with the communities, during FSC certification and specifically shared using main communication media (mail, telephone).

4.4 Optional Criterion: Exceptional Community Benefits

Not applicable as the project has not validated at the Gold Level for exceptional community benefits.

4.4.1 Short-term and Long-term Community Benefits (CCB, GL2.2)

4.4.2 Marginalized and/or Vulnerable Community Groups (CCB, GL2.4)

Community Group	Not applicable
Net positive impacts	Not applicable

⁸⁸ Annual monitoring reports available for VVB during verification in shared folder "Community impacts" and available at BDU website as Impact Report and Public Monitoring summary: <https://www.bosquesdeluruguay.com/en/impact/>

Benefit access	Not applicable
Negative impacts	Not applicable

4.4.3 Net Impacts on Women (CCB, GL2.5)

Not applicable as the project has not validated at the Gold Level for exceptional community benefits.

4.4.4 Benefit Sharing Mechanisms (CCB, GL2.6)

Not applicable as the project has not validated at the Gold Level for exceptional community benefits.

4.4.5 Governance and Implementation Structures (CCB, GL2.8)

Not applicable as the project has not validated at the Gold Level for exceptional community benefits.

4.4.6 Smallholders/Community Members Capacity Development (CCB, GL2.9)

Not applicable as the project has not validated at the Gold Level for exceptional community benefits.

5 BIODIVERSITY

5.1 Net Positive Biodiversity Impacts

5.1.1 Biodiversity Changes (VCS, 3.19; CCB, B2.1)

The expected biodiversity changes include an improvement of the ecological environment of the planted areas and the native forest and grasslands surrounding these forest plantations, meaning the total of the properties (only considering the cadastral units' part of the project): 16,181.5 ha. This is because native forests will not be impacted by the activity and monitored to avoid negative impacts, whereas those degraded grasslands due to cattle breeding with conservation potential are being protected and monitored, allowing its recovery. Cattle breeding activity did not include these measures, leading to degradation in the area.

Change in Biodiversity	Increase in biodiversity richness
Monitored Change	<u>Fauna:</u>

	<p>Biodiversity richness monitoring the presence of threatened or endangered species in areas of conservation interest.</p> <p><u>Flora:</u></p> <p>A fixed monitoring plot (400 m²) was implemented, where the flora is surveyed:</p> <ul style="list-style-type: none"> • Presence of natural regeneration in different strata • Undergrowth • Percentage of land covered • Presence of epiphytic / parasitic species • Presence of climbers • Indicators of felling or burning • Presence of invasive species of importance <p>Visual inspection of field supervisor tours (with camera tool)</p> <p>Analyzing:</p> <ol style="list-style-type: none"> 1. Verify that the distance restriction of 20 mts to the native forest is complied with, when the soil is tilled and the plantation is established. 2. Incorporate the area in the long-term flora and fauna monitoring program. 3. Monitor the presence of exotic tree species and eliminate them 4. Monitor the populations of parrots and flora of conservation interest 5. Check firewall status 6. Verify cattle exclusion
Justification of Change	<p>The state of conservation of natural areas is highly satisfactory, maintaining the different representative environments with a high diversity. The conservationist management plan implemented has proven it's favoring the maintenance and in some cases the reestablishment of the different habitats in the non-forested sectors.</p>
Change in Biodiversity	<p>Invasive species control</p>
Monitored Change	<p>Visual inspection of field supervisor tours (with camera tool)</p> <p>Analyzing:</p> <ul style="list-style-type: none"> • Is there natural regeneration of Eucalyptus and Pinus in unwanted areas?

	<ul style="list-style-type: none"> • Are there populations of other invasive plant species within the native forest, conservation areas and HCV? • Is the execution of extra-stand forestry practices invading conservation areas? • State of natural field areas (height of horizon of leaves in pastures, % of soil covered, erosion)? • Is any animal species displayed, if YES which one?
Justification of Change	Results have shown no increase in areas occupied by invasive species, compared to without-project condition, but same species identified in cattle breeding livestock dumps areas mainly. The evidence observed shows the conservation procedures conducted are limiting outbreaks of invasive or non-native species, controlling erosion levels, allowing for the regeneration of pastures.

5.1.2 Mitigation Actions (VCS, 3.19; CCB, B2.3)

The different measures taken, according to needs and conservation category, are listed below⁸⁹:

- Mapping of the conservation area and implementation of procedures to be respected by other activities (crops, alternative productions, vehicular traffic, activities not in accordance with the objective of the area, etc.).
- Control the entry of hunters, fishermen, birders, and people outside the company staff in general.
- Evaluate the relevance of carrying out livestock management with objectives compatible with the conservation of environments, their flora and fauna.
- Minimize the use of dogs in livestock management, since in general they are an important cause of mortality of wild fauna, mainly of small and medium-sized mammals.
- Fence the area where vulnerable species have been found.
- Reconstruction plan: management of invasive alien species and Pines

There are several aspects that are common to the management plan for unplanted areas of all farms (from the point of view of the fauna tetrapod) and with greater emphasis on HVCs:

- Restrict the presence of people to the minimum essential in the case of company personnel and contractors.

⁸⁹ Evidence included in the form of maps, contracts and other documents available to VVB in shared folder "Forest Management"

- Establish effective surveillance of the areas by Field Supervisors.
- Perform access control tasks and installation of posters deterrent. It would be desirable to prohibit (and enforce the prohibition) the access to unauthorized persons, in particular, but not exclusively, hunters, fishermen, campers, birders, etc.
- Prohibit (as far as possible, and if not reduce to a minimum essential) the presence of dogs linked to the performance of livestock movement tasks, in the environment of residences or accompanying visitors.
- Restrict employee's circulation, preventing them from entering conservation areas and particular to HVCs.
- Maintain special attention on the presence of exotic species feral (mainly wild boar dogs and pigs (*Sus scrofa*), axis deer - Axis and Hare - *Lepus europaeus*)) and substantial increases that warrant taking control actions.
- Control the presence, within the HVC, of plant species invasive aliens that imply an impoverishment of the environments for tetrapod fauna.
- Adjust livestock endowments (and categories and species) in response to its affectation to the vegetation cover, keeping in the as much as possible a good soil cover and the supply of shelters (tall grass, accumulated plant material) and food (seeds, leaves) for wildlife. It is desirable to consider cattle within HVCs as a management tool for vegetation rather than as a strictly productive objective.
- Reduce the risk of fire through perimeter firewalls, green areas, surveillance, and prohibition of fire and control of access.
- In the case of HVC it is desirable to avoid inter-fingering between cultivation and natural areas, minimizing the area contact and avoiding cutting or narrowing excessively biological corridors and connections.
- In all cases, the installation of posters relating to areas of conservation or HVC should be one of the last actions (after the establishment of controls and specific surveillance) since many times they have the opposite effect, warning about the presence of securities and tending to illegal access rather than avoiding it.
- Vegetable waste must be at least 20 m away with respect to the areas defined as priority conservation areas, as well as of water courses, buffer zones and ecotones.
- The roads and storage areas will be planned to avoid effects over property's conservation, as well as the shallows, water courses, etc. and in special conservation priority areas.

After the harvest:

- Verify that the 20 m buffer zones have been well defined with respect to the plantation firebreak.
- Verify that there are no specimens of *Eucalyptus* or *Pinus* (or exotics invasive) in conservation priority areas or other sites.

Moreover, specific considerations are defined for each HCV area in the project area, applicable to others if defined in the project area. For example:

- Control possible fragmentation or discontinuity of areas and corridors.
- Control the natural regeneration of cultivated forest species towards unwanted areas.
- Eliminate invasive species populations within HVC and RA.
- Verify that extra-stand forestry practices are not carried out.
- Verify the status of non-forested areas, fences and posters.
- Verify the ground cover and adjust accordingly the provision of livestock.
- Circulation with heavy machinery is restricted in areas to conserve and areas to conserve.

Specific considerations for areas of particular conservation interest (APIC), if they are identified in the project, are:

- Take care of the possible fragmentation or discontinuity of areas and corridors.
- Control the natural regeneration of forest species cultivated towards unwanted areas.
- Eliminate invasive species populations within areas of special interest for conservation.
- Verify that extra-stand forestry practices are not carried out.
- Verify the status of non-forested areas, fences and signage.
- Verify the ground cover and adjust accordingly the provision of livestock.
- Circulation with heavy machinery is restricted in the areas to be conserved and areas to conserve.

Regarding forestry activities, the mitigation plan in place includes:

A. During harvest:

- Tree cutting: The most suitable cutting form should be used to ensure the conservation of the surrounding areas classified as HCV. Special attention should be paid to areas adjacent to the sites defined as APIC and lowlands.
- Traffic of machinery: The traffic of machinery should be avoided in HCV areas, as well as in the vicinity thereof, the sites to be protected must be clearly marked.
- Entering the APICs should be avoided by employees.
- Vegetable residues must be at a minimum of 20 m with respect to the areas defined as APIC, as well as of water courses, buffer zones and ecotones.
- The roads and storage areas will be planned avoiding affecting areas of conservation of the property, as well as the shallows, water courses, etc. and in special conservation priority areas.

B. After the harvest:

- Verify that the 25 m buffer zones have been well defined with respect to the firebreak of the plantations on the South side and 12 other sides.
- Verify that there are no specimens of Eucalyptus and Pinus (or exotics invasive) in conservation priority areas or other sites.

C. Grazing

- Control bovine cattle, in the permitted areas, during the year to facilitate the seedling of native forage value pastures.
- Monitor the state of grasses, especially in the lowlands, taking as reference the average height of the horizon of leaves.
- Analyze the possibility of dividing the property into paddocks should to manage livestock in the best possible way in different circumstances / times of year.

D. Planning management or re-planting:

- Plan the design of the stands and management activities in order to ensure APICs are not affected.
- Re-plan low forested areas, eliminating the stands included within them.

Also, the installation of signage is used as a communication tool with people passing through the areas of influence of the project and associated communities, such as "slow- down in populated areas", "do not litter", warning signs of dangers or areas of interest or information signs.

5.1.3 Net Positive Biodiversity Impacts (VCS, 3.19; CCB, B2.2, GL1.4)

As demonstrated during VCS validation in PD, the identified baseline activity: cattle breeding, represents a degrading land activity in the region. The activity does not require an Environmental Impact Assessment, leading to no mitigation plans, or HCV areas identification and conservation.

No mitigation plans mean no actions taken to avoid soil erosion, plant invasion, among other activity's impacts. From the biodiversity monitoring conducted in the different farms, those areas impacted by grazing presented low potential to provide native biodiversity habitats, and only species adapted to disturbed areas were present. This is due to the grazing management in the area, affecting vegetation cover and available resources. Moreover, it presents low employment rates per hectare in comparison to other economic activities.

First, due to long-term farming, ecological structure of most project sites where afforestation takes place was relatively homogenous, with low biodiversity. BDU project implemented afforestation activities with scientific and reasonable configuration methods, with no burning and slash. The row site preparation will protect the existing vegetation as much as possible. Therefore, the implementation of this project will not decrease biodiversity of project sites.

Second, because ecotones and buffer areas are very important areas from the point of view of biodiversity and their conservation, AF focuses special attention to these areas. In them, the biggest number of fauna species are registered in relation to forestry plots, inside each farm. At the same time, they act as biological corridors, avoiding isolation or genetic drift. The implementation and maintenance of buffer zones between forest plantations and native forests of more than 20 m, allow the development and, in some cases, the improvement of pastures. These pastures are habitat and biological corridors for many RAE fauna species.

Last, scientific and rational afforestation projects can adjust the hydrological cycle, reduce drought and flood risk; promote soil nutrient cycle, improve local micro-climate and others ecological environments.

The positive impacts of the development of the project are demonstrated above compared with conditions under the without-project land use scenario reaching the 16,181.5ha of productive area.

Species and habitat

During VCS validation it was confirmed that the baseline activity (cattle grazing) degraded local ecosystems, with no Environmental Impact Assessments, mitigation measures, or HCV identification. Grazed areas supported only disturbance-adapted species and offered limited biodiversity habitat. In contrast, the project's afforestation activities applied scientific site preparation (no burning, no slash, minimal disturbance of existing vegetation), resulting in stable or improved biodiversity conditions. Special monitoring in ecotones and buffer areas demonstrated higher fauna richness compared to plantation

	plots, showing that the project has not reduced—and in some cases enhanced—habitat quality for Rare, Threatened, or Endangered (RTE) species during the monitoring period.
Areas needed for habitat connectivity	Under baseline grazing, landscape connectivity was not actively conserved, and habitats remained fragmented. The project established and maintained buffer zones of more than 20 m between plantations and native forests, which function as biological corridors and pastures supporting RTE fauna. These measures avoid isolation or genetic drift, maintaining connectivity between natural habitats across farms. Combined with improvements to hydrological regulation, soil cycles, and microclimate, the project demonstrably safeguards and, in some cases, improves connectivity relative to baseline conditions.

5.1.4 High Conservation Values Protected (CCB, B2.4)

From what is indicated in section 5.1.1, the maintenance and increase in the biodiversity of flora and fauna for the unplanted area is demonstrated, and all other HCV in the project zone not negatively affected as they don't take place within the project area and are protected either by national and local entities as recognized reserve areas or by private property, in the case of certified plantations.

HCV Quebrada Los Loros at "La Hacienda" farm corresponds to a ravine that is born within the property, with abundant native vegetation. According to the survey of flora and fauna that began in the spring of 2008, species of conservation interest were found. These included the presence of 43 species of trees and shrubs, among which some of interest for conservation were recorded, in attention to their restricted distribution or to its productive uses. Moreover, regarding fauna, three parrots listed in the national SNAP list for conservation were recorded:

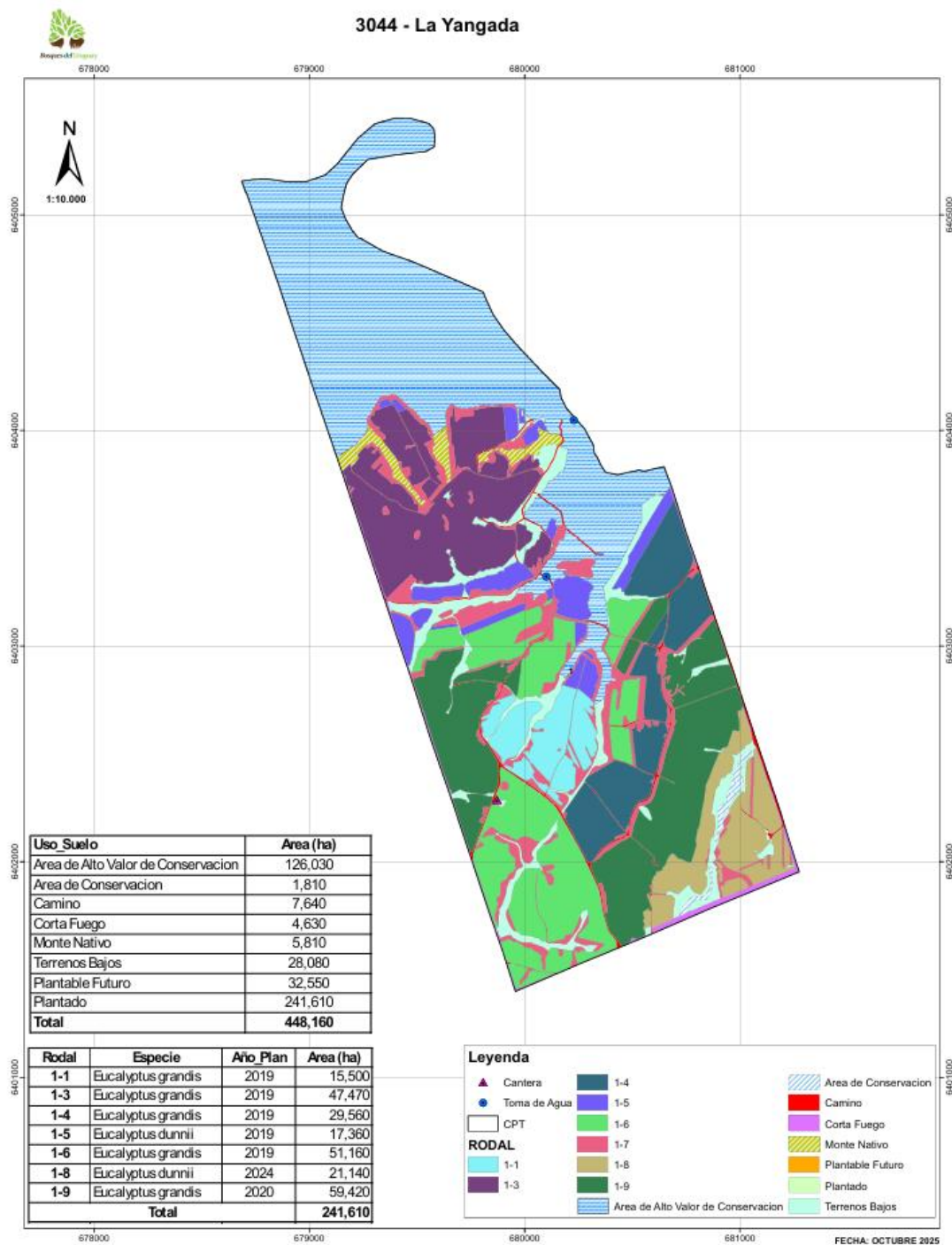
- *Pyrrhura frontalis* (chiripepé)
- *Aratinga leucophtalmus* (White-eyed parakeet)
- *Aratinga acuticaudata* (Blue-crowned parakeet)

Conservation protection and management activities have been documented in the "summary report for forest HCV management" and detailed in the cartography. The "Natural Resources Management" chapter of the management plan details that the flora and fauna studies are carried out by external experts to know the natural resources on land certified by Forteko. Within the same chapter, the areas to be protected or preserved are established. Additionally, hunting is prohibited in all Forteko's Project area and native forests are not disturbed.

Within the project zone, managed by AF and owned by the Trust Fund, there are detailed wildlife censuses, carried out by external experts that characterize the different existing ecosystems. There is a list of existing and potential species on the land according to their conservation status. The silvicultural systems applied to artificial plantations meet the production objectives and are like those of other companies in the area and approved by the competent authorities. In this line, new potential HCV areas are studied and identified throughout the project lifetime. Its conservation category is later defined after consulting interest parties in a public comment period.

In this line, there are high conservation value areas in the project zone which were not initially reported in the biodiversity monitoring plan in the PD, although they were mapped and included in the project zone maps. These can be found in La Jangada and Las Grutas properties, within the project zone, which take part in the Trust Fund BDU 3 (the same as that for the farms of the project area).

DRAFT



In the case of Las Grutas, it's area is of particular interest because certain attributes were identified, such as the presence of some ferns that are rarely found in the country. On the other hand, La Jangada, due to its location on the banks of the Río Negro provides environmental diversity and, consequently, the potential to host a significant wealth of native tetrapod fauna.

At the moment, no degraded areas were identified that might require the implementation of restoration plans. However, based on these baseline studies, the Plan for the Elimination of Invasive species (ELEI) 2020 -2021 was established. The control of the elimination of exotic species is in place, with intervention activities that depend upon the property's need. The project preserves areas of native forest, natural grasslands with rocky outcrops, and low grasslands. These areas are mapped and identified and are well known to land workers.

5.1.5 Species Used (VCS, 3.19; CCB, B2.5, 2.6)

Forteko's plantations include exotic species of Eucalyptus and Pines. Specifically, the Exotic Invasive Species Committee for Uruguay (CEEI) has published a list of invasive flora and fauna, where Eucalyptus is not among them ⁹⁰. There is no evidence of invasive species. The results obtained from the monitoring of the verification period, described in items 5.2 and 5.4, showed the reduction of invasive species and no new exotic and / or invasive species were identified

Species introduced	Classification	Justification for use	Adverse effects and mitigation
<i>Eucalyptus grandis</i>	Non-Native Non-invasive	They ensure an adequate productivity level and market access for the products to be obtained, which would not be possible if other species were used. The project will produce high quality wood suitable for plywood and saw wood production. To produce these types of logs, intensive silvicultural management is implemented (pruning up to 9 meters and thinning), which means intensive and specialized workforce.	As a general measure, the project will voluntarily adopt the application of the National Code of Good Forest Practices. Likewise, an environmental management system will be implemented with a focus on continuous improvement, following the FSC (Forest Stewardship Council) standard.
<i>Eucalyptus dunnii</i>	Not-native Not-invasive	This specie will be planted in low areas or where <i>Eucalyptus grandis</i> can be affected by frost damage ⁹¹ . Similarly to <i>Eucalyptus grandis</i> , <i>Eucalyptus dunnii</i> ensure an	Based on the environmental impact studies carried out, a significant negative environmental impact is not expected as a consequence of the

⁹⁰ Available at: <https://www.gub.uy/ministerio-ambiente/comunicacion/publicaciones/lista-especies-exoticas-invasoras-uruguay#:~:text=El%20Comit%C3%A9%20de%20Especies%20Ex%C3%B3ticas,requieren%20de%20atenci%C3%B3n%20prioritaria%20da> and for VVB during verification

⁹¹ Oberschelp, G.P.J et al (2016) Assessing the freezing stress tolerance in three species of Eucalyptus: first results.

Species introduced	Classification	Justification for use	Adverse effects and mitigation
		adequate productivity level and a implementation of the project market access for the products to activities and the use of this species. be obtained. This species mix willThe Exotic Invasive Species allow the project to produce bothCommittee for Uruguay (CEEI) has high quality wood suitable forpublished a list of invasive flora and plywood and saw wood productionfauna, where Eucalyptus is not among and fast-growing species for pulp. them. Still, the Forestry Management Plan includes exotic and non-native species control, which consist of monitoring and extraction of individuals if necessary.	
<i>Pinus Taeda</i>	Non-Native Not-invasive	<i>Pinus taeda</i> started to be used inAs a general measure, the project will the 1960s ⁹² . Currently this treevoluntarily adopt the application of species is one of the most widelythe National Code of Good Forest planted in Uruguay, representingPractices. Forests are based on 22 – approximately 20% (~ 155,000ha)25-year rotation <i>Loblolly Pine (Pinus of commercial plantationtaeda)</i> , managed with pruning (to a according to “Dirección Generalheight of 5.6 m) and two thinning Forestal” ⁹³ . In addition, this speciesoperation 22–25 years in knot-free, has been successfully planted andhigh-diameter logs suitable for saw- has satisfactorily growth in the milling. Plantation was completed by Forteko project site since 2007, year 5 of the project and forests will there were no soil or weatherbe replanted after clear-cut harvest. adaptation problems which couldPractices are certified with FSC be seen during last verification. standard.	

5.1.6 Invasive Species (VCS, 3.19; CCB, B2.5)

Existing invasive species	Mitigation measures to prevent the spread or continued existence of invasive species
<i>Senecio madagascariensis</i>	Not specifically identified in the project area, these species were reported in the project zone in varying monitoring reports. The Forestry Management Plan includes exotic and non-native species control, which consist of monitoring and extraction of individuals when necessary. The annual
<i>Cynodon dactylon</i>	
<i>Ligustrum spp.</i>	

⁹² Porcile Madermi (2007) Crónicas del desarrollo forestal en Uruguay. Cuadro 1 (see reference n° 37)

⁹³ División Evaluación e Información, DGF-MGAP (2021) Cartografía forestal de bosques plantados 2021 Available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/comunicacion/publicaciones/anoario-opypa-2021/estudios/cartografia-forestal-bosques-plantados-2021>

monitoring report evidence the actions taken in this regards for the different properties.

5.1.7 GMO Exclusion (CCB, B2.7)

This project is FSC certified so it has a commitment with FSC values. One of them is the prohibition of introduction of genetically modified organisms in forestry operations.

5.1.8 Inputs Justification (VCS, 3.19; CCB, B2.8)

Based on FSC Principle 6, Environmental Impact, management systems should promote the development and adoption of non-chemical methods for pest management, in order not to harm the environment. The use of chemical pesticides should be avoided. Because of that, AF has in place an internal policy and strategy to minimize the use of chemical substances. In the case of pest control, if chemical pesticides are needed, an environmental and social risk assessment is conducted prior to application, with the aim of identifying impacts, mitigation and monitoring measures of the different chemical alternatives.

At the same time, given forestry sanitation is considered to need a national scale solution among producers, AF channels its efforts through the Health Commission of the Society of Forest Producers (CS-SPF), participating actively. The CS-SPF establishes a short and medium-term work plan, which includes lines of work in aspects of monitoring, control, investigation and training / dissemination for pests considered priority. In turn, forest health issues at the national level are coordinated by the CECOPE (Executive Council for the Coordination of Pests and Diseases forestry) made up of representatives of the MGAP through the General Directorate Forestry and the General Directorate of Agricultural Services, INIA and SPF.

Moreover, a report conducted by a specialist in the use of agrochemicals "Report on the justification of the use of agrochemicals (herbicides and ant killer) in forest plantations" (2020) includes a technical analysis of weed control and agrochemicals, including a detailed national and regional literature review. The analysis concludes the need for the use of agrochemicals as the most economically profitable method and the impossibility of the mechanical method for areas larger than 100 ha due to the lack of local labor, as well as being more costly and involving a higher level of risk. There is a history that the non-use of agrochemicals for weed control significantly reduces the yield of Eucalyptus plantations, making them unviable. Agrochemicals are used responsibly and operational procedures are in place for the storage, transport and use of agrochemicals, according to CNBPF guidelines and FAO codes.

In reference to the use of ant-killers, it presents studies that conclude at the local level that there are no alternatives to the use of ant-killer and that plantations cannot be established without ant control, citing studies carried out by the Universidad de la República at the request of the working group of the Health Commission of the Society of Forest Producers.

Some of the inputs eventually used include⁹⁴:

Name	S-metolachlor
Justification of Use	It is a systemic herbicide, for pre-emergent use, it is absorbed by coleoptile and radicle in annual grasses and by hypocotile and radicle in germinating broadleaf weeds. It is important to bear in mind that this product will not exert control if it is applied on emerged weeds.
Adverse Effect	In the environment it behaves as ⁹⁵ : Solubility in water: high to light. Persistence in the soil: slight. Mobility in the soil: high to medium. Persistence in water sediment: more persistent. Volatility: not volatile. Bioaccumulation: medium to slight.

Name	Metsulfuron-methyl
Justification of Use	Used to control wide-leaf weeds. In addition, grazing is used as an effective method to control the vegetation before planting.
Adverse Effect	EPA considers it as "Slightly toxic". In the environment it behaves as: Solubility in water: moderate. Persistence in the soil: medium to non-persistent. Mobility on the ground: extreme. Persistence in water sediment: more persistent. Volatility: not volatile. Bioaccumulation: slight. ⁹⁶

Name	Clopyralid
Justification of Use	It is used for the post-emergence control of composite weeds.
Adverse Effect	In the environment it behaves as ⁹⁷ : Solubility in water: high. Persistence in the soil: medium to non-persistent. Mobility on the ground: extreme. Volatility: not volatile. Bioaccumulation: slight.

⁹⁴ A complete list of inputs used annually, quantity and establishments where it is applied is available for VVB in shared folder "Forest management"

⁹⁵ <http://www.plaguicidasdecentroamerica.una.ac.cr/index.php/base-de-datos-menu/388-metolachlor>

⁹⁶ Source: <http://www.plaguicidasdecentroamerica.una.ac.cr/index.php/base-de-datos-menu/395-metsulfuron>

⁹⁷ Source: <https://www.plaguicidasdecentroamerica.una.ac.cr/index.php/base-de-datos-menu/136-clopiralida>

Name	Isoxaflutole
Justification of Use	It is used for the pre-emergence control of grass and broadleaf weeds.
Adverse Effect	EPA considers it as "Slightly toxic". In the environment it behaves as ⁹⁸ : Solubility in water: low. Persistence in the soil: non-persistent. Mobility on the ground: high. Persistence in water sediment: less persistent. Volatility: not volatile. Bioaccumulation: slight.
Name	2,4 D-Amine ⁹⁹
Justification of Use	It is a selective herbicide with low volatility and systemic action, specially designed to combat broad-leaved weeds in natural fields and grass pastures.
Adverse Effect	EPA considers it as "Highly toxic". In the environment it behaves as ¹⁰⁰ : Solubility in water: high. Persistence in soil: medium to non-persistent. Mobility in soil: high to light (depending on pH; high pH5). Persistence in water sediment: less persistent. Volatility: not volatile. Bioaccumulation: slight.
Name	Glyphosate
Justification of Use	Weed control is performed by using glyphosate, a moderate toxicity ¹⁰¹ herbicide according to Uruguay legislation on toxic substances. Two applications are carried out some days before tillage and/or plantation. Generally, the last row (4th row) and the last intermediate row (3rd row) are applied with glyphosate. The rest of the rows are made with selective and pre-emergent herbicides which do not contain glyphosate. In addition, grazing is used as an effective method to control the vegetation before planting.

⁹⁸ Source: <https://www.plaguicidasdecentroamerica.una.ac.cr/index.php/base-de-datos-menu/347-isoaflutol>

⁹⁹ Source: http://www.lanther.com.ar/producto/73/2_4-d-amina-60-lanther/

¹⁰⁰ Source: <http://www.plaguicidasdecentroamerica.una.ac.cr/index.php/base-de-datos-menu/5-24-d>

¹⁰¹ In Uruguay, Glyphosate has now been declared with a moderate toxicity, corresponding to a Category III (blue label): Category 1a. Extremely dangerous or very toxic; Category 1b. Very dangerous or toxic; Category 2. Moderately dangerous or noxious; Category 3. Moderately dangerous or careful; Category 4. Normally not dangerous or careful

Adverse Effect	Given its potential effect on soils, it is limited to pre-emergence periods (tillage and or plantation) and used only over last and last intermediate rows.
-----------------------	---

Name	Haloxifop metil
Justification of Use	Used for post-emergence control of grass weeds.
Adverse Effect	In the environment it behaves as ¹⁰² Solubility in water: low. Persistence in soil: medium to non-persistent. Mobility in the soil: high to medium. Persistence in water sediment: less persistent. Volatility: not volatile. Bioaccumulation: slight.

Name	Fipronil
Justification of Use	It is used for ant control during the establishment of the trees, meaning with a minimum of 8-9 years between applications. In the absence of a national regulation regarding use of the input, the company has decided internally the minimum distance for application near water bodies, being 10 mts to water bodies when terrestrially applied. Fipronil is applied manually in a solid format, inside bateholders minimizing risks of runoffs for localized control of ants. Only specially trained personnel manage the chemicals.
Adverse Effect	The WHO and EPA consider fipronil "moderately toxic" to humans. It is considered low to moderately toxic depending on the route of exposure. It is classified within group C, a possible human carcinogen. In the environment it behaves as: Solubility in water: low. Persistence in the soil: extreme to medium. Mobility on the ground: medium to light. Persistence in water sediment: less persistent. Volatility: not volatile. Bioaccumulation: medium. ¹⁰³

Name	Triclopyr
-------------	-----------

¹⁰² <http://www.plaguicidasdecentroamerica.una.ac.cr/index.php/base-de-datos-menu/309-haloxifop>

¹⁰³ Source: <http://www.plaguicidasdecentroamerica.una.ac.cr/index.php/base-de-datos-menu/259-fipronil>

Justification of Use	It is used to control broadleaf weeds in grass pastures (woody and semi-woody), for the removal of stumps and unwanted trees.
Adverse Effect	<p>EPA considers it as "slightly toxic". In the environment it behaves as¹⁰⁴:</p> <p>Solubility in water: high. Persistence in soil: high to non-persistent. Mobility in soil: high to extreme. Persistence in water sediment: less persistent. Volatility: not volatile. Bioaccumulation: slight.</p>

5.2 Offsite Biodiversity Impacts

5.2.1 Negative Offsite Biodiversity Impacts (CCB, B3.1) and Mitigation Actions (CCB, B3.2)

Negative Offsite Impact	Mitigation Measure(s)
Livestock enters protected natural areas or the exclusion of livestock in those areas.	Build fences or exclusion of livestock in those areas.
High density of cattle – degradation of grasslands and native forest, by shift of livestock from plantation to said natural areas	Proper management. Livestock density control (units per ha). Livestock management plan. Evaluation of pastures within afforestation. Annual survey on impacts in HVC areas within farms.
The advance of the native forest towards the plantation, eliminates the buffer areas	Buffer zones are established or re-established between forest plantation and native forests. This grasslands buffers zones must be equal or bigger than 20 m.
Plague outbreaks	Forteko project works together with the Health Commission of the Forest Producers Society (CS-SPF for its acronym in Spanish). CS-SPF establishes a short- and medium-term work plan, which includes monitoring, control, research and training/dissemination for priority pests. In this framework, the activities of the AF Group's health management plan are part of or aligned with the activities of the CS-SPF. The main areas of the plan include ¹⁰⁵ :

¹⁰⁴ Source: <https://www.plaguicidasdecentroamerica.una.ac.cr/index.php/base-de-datos-menu/555-triclorpir>

¹⁰⁵ More information on the Forestry Management Plan section 3.6 in shared folder to VVB

Negative Offsite Impact	Mitigation Measure(s)
	<ul style="list-style-type: none"> – Preventive actions: material selection; health check of seedlings on entry; silvicultural management (timing, procedures) – Monitoring: systematic survey; survey of specific events – Control: biological; silvicultural (sanitary thinning); chemical as last resource.

5.2.2 Net Offsite Biodiversity Benefits (VCS, 3.19; CCB, B3.3)

The Forteko project is a subgroup of lands within BDU III and II Trust Fund total plots. It comprises 30 properties or plots located in the Central East region of Uruguay (the host country), with 13,823.1ha effectively planted (as in 2024). The project has a long history of grazing by beef cattle, activities that have caused soil erosion and land degradation. Forteko project, a forest plantation for obtaining pulp and saw wood and removing carbon dioxide from the atmosphere have been established since 2007, expecting to significantly decrease soil erosion and soil degradation.

Before the implementation of the Forteko project, native fauna or flora studies in the area were never conducted. Extensive beef production companies did not have the habit nor the obligation to carry out this kind of study, since traditionally the extensive cattle are not certified by international standards (for example, FSC or similar), nor is it controlled by the Ministry of the Environment (ex-DINAMA). Burning was a common activity in pastures by cattle breeders. With the BDU project implementation, new HCVs areas are defined, native forests are strictly controlled, and fires are controlled. Periodic monitoring activities allows to identify the activities' impact on HCV and communities.

The ongoing forestry project, in terms of land occupation with the management being carried out to date, does not affect the conservation areas identified as representative. A coherent design and areas of interest are maintained and are interconnected within the property and through streams and gullies also with neighboring fields. The establishment has significant fields with rocky outcrops. In these areas, fragmentation was generally avoided by the occupation of land in the implanted forestry project. At the end of the 2021 monitoring, the stands remain within the limits defined in accordance with the project and adjusted to the established distances from the native forest. Machinery traffic is being carried out outside the aforementioned areas defined as representative, without affecting low-lying areas.

5.3 Biodiversity Impact Monitoring

5.3.1 Biodiversity Monitoring Plan (CCB, B4.1, B4.2, GL1.4, GL3.4)

Initially, during 2008, the first characterization and survey of the properties with potential conservation interest were conducted. The goal of the studies was to detect those areas that contain the most conservation values, in a broad sense, encompassing not only species but also conservation values. Considering the connectivity and the representativeness of the values contained with respect to the region in which they are located, defining the presence, or not, of areas of High Conservation Value (HCV). If present, initial measures were proposed to ensure their continuity and the implementation of specific monitoring plans developed for each category and appropriate management plans.

Later, in 2019, a new analysis of the flora and tetrapode fauna potentially present was carried out based on the available databases consulted (MVOTMA, 2017) using the Military Geographic Service, which means the analysis covered a much larger surface area than those of the properties. Based on these, an approximation was made of the conservation status and the importance of the environments as biodiversity hotspots, their functioning as biological corridors and their link to conservation strategies.

Flora field sampling was planned by means of prior photo-interpretation, identification of different environments and definition of permanent sample areas, and further field visits with the corresponding identification of species and herborization of plants. A checklist was generated to report vegetation conservation conditions and species identification.

In the case of fauna field sampling, these were conducted at establishment level with bi-annual frequency (taking into consideration seasonal variety), for HCV areas, based on sighting methodology, with visual inspection during the field supervisor's tours (photographic camera tool). The sampling identifies species richness for: amphibians, reptiles, mammals and birds.

Finally, monitoring plans were designed and implemented based on the category of conservation considered.

The methodology used in the identification of areas of high conservation value was based on the document "Common Guidelines for the Identification of High Conservation Values - draft May 2013

from the “Proforest organization¹⁰⁶. The six types of High Conservation Values (HCVs) are as follows:

- HCV 1 - Species diversity: Concentrations of biological diversity, including endemic species and rare, threatened or endangered species, significant to global, regional or national level.
- HCV 2 - Landscape-scale mosaics and ecosystems: Large ecosystems and mosaics of landscape-scale ecosystems that are globally, regionally or nationally significant, and that contain viable populations of the vast majority of species that appear in natural, in natural patterns of distribution and abundance.
- HCV 3 - Ecosystems and habitats: Rare, threatened or endangered ecosystems, habitats or refuges danger.
- HCV 4 - Critical ecosystem services: Basic ecosystem services in critical situations, including the protection of water catchment areas, the control of the erosion of vulnerable soils and slopes.
- HCV 5 - Community needs: Areas and resources essential to meet the needs of basic needs of local communities or indigenous peoples (for example, subsistence, health, nutrition, water, etc.), identified in collaboration with these indigenous communities or peoples.
- HCV 6 - Cultural values: Culturally significant areas, resources, habitats and landscapes, archaeological or historical criticism at the world or national level and / or of cultural, ecological, economic or religious / sacred importance for the traditional culture of the local communities or indigenous peoples, identified through the involvement of said indigenous communities or peoples.

In 2008, a review was carried out of the assets managed by Cambium Forestal Uruguay S.A., assessing whether the six criteria mentioned above were met in any of the properties. The advice of a biologist with expertise in flora and fauna was contracted. The following were selected of native forest, wetlands or other environmentally interesting areas were selected. After an on-site review by Cambium Forestal Uruguay S.A. staff, those lands were declassified where the native forest or environmentally interesting areas were fragmented or had common characteristics of the region. In this way, the following project plots were left for the consultant's visit:

- Quiebra yugo, Department of Cerro Largo.
- Manolete, Department of Cerro Largo.
- La Hacienda, Department of Cerro Largo.

The biologist carried out a diagnostic visit to the selected properties, to determine whether areas with interesting biodiversity potential exist on these properties. The result of the visit was a document entitled "Report of field trips for the selection and proposal of sites to survey and monitor

¹⁰⁶ Available at: <https://www.proforest.net/fileadmin/uploads/proforest/Documents/Publications/guia-generica-para-la-identificacion-de-altos-valores-de-conservacion.pdf>

flora and fauna". This report prioritizes the sites with a high environmental potential for a flora and fauna monitoring program.

At the same time, company personnel carried out a review of the property, based on its proximity to population centers. It was determined that water sources for human consumption would qualify as a basic need for the communities. However, in the case of the project, there are no villages adjacent to the establishments.

In this line, a HCV1 and HCV3 were identified in La Hacienda property. For these reason, as prevention measures, the following procedures were established:

1. Indicated the area on the property plan.
2. Inform contractors of the environmental value when they have forestry operations close to the area.
3. Indicated the boundaries of the plantation, respecting the 20 m that they must exist between the plantation and the native forest.
4. Access control to third parties.
5. Access control and careful handling of livestock loads.
6. Firewall maintenance.
7. Periodic supervision to avoid the entry of hunters and birders.

Regarding AF's monitoring procedures, these are detailed below, and implemented for all FSC certified projects.

Criteria for the categorization of representative BDU properties for the conservation of biodiversity

The following criteria is used for the categorization of forest properties in BDU III pointing to the greater efficiency in the application of conservation measures and considering human and economic resources availability for their management and monitoring.

- 1) Presence of SNAP (National System of Protected Areas) or high value areas for HCVA conservation according to the definition originally developed by the FSC for High Conservation Value Forests in the certification of forest ecosystems.
- 2) Biogeographic representativeness.
- 3) Representativeness of watersheds.
- 4) Presence of threatened species of flora or fauna at the international or regional level according to the International Union for the Conservation of Nature.

- 5) Presence of endangered species of flora or fauna at the international or regional level according to the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES).
- 6) Connectivity of the areas.
- 7) Estimated wealth (Chao 1).
- 8) Special landscape value.
- 9) Effective total area of natural areas.
- 10) If there are still conflicts in the categorization of the areas after the application of these criteria, indexes of similarity between communities can be applied (Greig-Smith).

Based on these criteria, the properties selected as representative are surveyed (monitored) in greater depth to clearly determine its habitat values with precise identification of their attributes in order to define conservation plans. The monitoring studies would be applied over properties with HCV, presence of natural environments or species of study interest or farms with high species richness values. These studies involve annual surveys (at least two surveys to gain information on different times of the year), calculation of diversity indexes, spatial distribution, indicator species, wealth estimation, etc.

The follow-up studies would be applied to the rest of the representative farms. These studies involve surveys every five years, calculation of species richness, distribution of species and indicator species. The categorizations made are subject to changes due to the entry of higher priority properties (more representative) or changes in management or anthropogenic activity that may change their condition.

Activities taken to perform the flora and fauna monitoring studies include:

- 1) Prior to the fieldwork, surveys over satellite images (Google Earth) to identify environmental composition and over available historical information are made. Based on this information, areas of interest, access to them and other logistical aspects are defined.
- 2) In situ, ground survey (surface data) according to vegetation physiognomy is carried out.

Subsequently, walking and vehicle trips are made by transects in the natural environments present in the property. The vegetation is characterized by recording the dominant species of each zone, through observation, collection and registration.

The analysis includes a comparison of total lists of potential species within the area, and those present (detected by different means during the field visit), as well as to those that are present according to the composition and state of the composition and status of the environments

represented. An approximation is made of the conservation status and the importance of the environments as biodiversity hotspots and their functioning as biological corridors.

In relation to the fauna, walking tours are the main tool used to reduce the potential lists obtained from bibliographic information to lists closer to the real ones, recording the richness and abundance of the tetrapod fauna species. This emanates from the recognition of the environments represented in the study area and their conservation status. The lists generated are analyzed to detect species present based on IUCN Red Book (IUCN, 2013), Red List of the Birds of Uruguay (Azpiroz et al., 2012, and the List of Priority Species for Conservation (SNAP - DINAMA) (Soutullo DINAMA) (Soutullo et al., 2013)¹⁰⁷. The presence of migratory species is also analyzed, as well as those that are present in different observation probability categories (Azpiroz et al., 2003).

Photographs are taken with digital cameras, of the most representative species. For the bird survey, binoculars are used for walking tours and for the group of birds, the number of species (richness) and the number of individuals of each (abundance) based on direct sightings and the identification of vocalizations is recorded. For the amphibian surveys, they are carried out with estimation of abundance by sound record of vocalizations and by active search of individuals. For reptiles, an active search is made under stones, trunks and other cryptozoic shelters. For mammals, traces and caves are surveyed.

Fauna Monitoring Plan

Fauna biodiversity plans are performed in most representative farms belonging to BDU III by using environmental indicators that describe the impact on the environment.

According to Canter L.W. 1998¹⁰⁸, environmental indices are useful for:

- 1) Summarize existing environmental data.
- 2) Report on the quality of the affected environment.
- 3) Assess the vulnerability or susceptibility to contamination of a certain environmental category.

¹⁰⁷ Azpiroz, A.B., M. Alfaro y S. Jiménez. 2012. Lista Roja de las Aves del Uruguay. Una evaluación del estado de conservación de la avifauna nacional con base en los criterios de la Unión Internacional para la Conservación de la Naturaleza. Dirección Nacional de Medio Ambiente, Montevideo.

Soutullo A, C Clavijo & JA Martínez-Lanfranco (eds.). 2013. Especies prioritarias para la conservación en Uruguay. Vertebrados, moluscos continentales y plantas vasculares. SNAP/DINAMA/MVOTMA y DICYT/MEC, Montevideo. 222 pp.

¹⁰⁸ Environmental Impact of Water Resources Projects. US: Lewis Publishers Inc. Canter, L.W. (1998)

- 4) Selectively focus on key environmental factors.
- 5) Serve as a basis to predict the impact.

The specific biological diversity of a site depends on the number of species present (Wealth of species) and the number of individuals that make up each of the species (relative abundance).

Low values may indicate:

- Disturbances due to harvesting activities (noise, traffic of vehicles and people, exposure to atmospheric agents, etc.)
- Lack of buffer zones between planted forests and natural environments.
- Lack of connection or biological corridors in natural areas.
- Lack of natural environments that act as feeding or reproduction areas.
- Barrier effect for the movement of species, mainly because of height of planted trees (final stage of forestry before harvest).

Species richness indexes (Chao) are also used to evaluate the real number of species present in each farm studied. Chao 1 is a nonparametric estimator of the number of species in a community based on the number of rare species present in the sample.

The richness of the species distributed in a non-homogeneous way, between the different environments inside the area, would indicate a certain human affectation in the area that would be increasing the number of some particularly sensitive species.

In turn, the distribution of the species is estimated considering the levels of specific richness and relative abundance detected in the main landscape units.

So far, in the monitored farms, the structure of the different species present in the area tends to be homogeneous (it is not clearly dominated by any species). That is, all the species observed have a similar high abundance, which indicates a low degree of imbalance. The population differences are not enough for these species to affect the rest of the community. In some properties, high or very high values have been recorded in the biodiversity indexes.

Criteria for the selection of species to determine the biological diversity of a given site:

At the global level, both invertebrate and vertebrate species are used for studies of biological diversity. In the case of the research team, the Bird Class was chosen, subphylum Vertebrata (Vertebrates) due to:

- Easy direct and / or indirect registration.
- Important number of species in the country.
- Specific conservation status defined in most species, whether at the national, regional and global levels (Ministry of Environment, IUCN, CITES).
- Can apply as RAE species for international forest standards.

Selection of species as indicators (“Indicator species”)

An indicator organism is a species selected for its sensitivity or tolerance to the various types of contamination and their effects. In addition, the use of indicator species is useful for diagnosing environmental quality because they have some important characteristics:

- Provide valuable information quickly to take conservation measures in the minimum time available.
- Animals, plants and their quantitative and qualitative relationships are modified to different types of environmental degradation even when they are produced sporadically or discontinuously over time.
- Many species, due to their mobility, absorb and indicate environmental actions of broad or specific foci in a natural area.
- The biological indicators are compatible and can complement with analysis and physicochemical indicators

Selection criteria

To select indicator species, the role they play in the ecosystem will be considered, especially those species known to be sensitive to specific actions of the use of resources related to the project in question, species that play a basic role in a given community and species that represent a certain group of species (associations). For example, some bird species that are not very specialized find food resources in modified environments, where some specific plant species that provided food to other species of birds specialized in them have disappeared. These last ones (specialists) will see reduced population in these areas, while those (generalists) will see them increase sensibly due to lack of competence in the availability of other resources (shelters, water, etc.).

Migratory species have often been shown to be more sensitive to environmental changes in the sites where they arrive, meaning that they may no longer be stopover, feeding, breeding or resting sites. The proportion of migratory species in the total number of species detected is a good indicator of the conservation or otherwise of environmental suitability.

Moreover, the proportion of bird species in categories of frequency of observation are a good indicator of the degree of health of the environments studied. The categories considered are Common, Fairly Common, Uncommon and Rare (according to Azpiroz, 2003). Environments that suffer strong disturbances tend to vary the proportions of observation frequency categories, generally with an increase in Common and Fairly common species to the detriment of Uncommon and Rare species.

The analysis of the relative abundances of these species will be useful for the purpose of evaluating changes in the habitat that determine high or low levels in the populations and are manifestations of impacts on a larger scale. It is also important the real or potential value from the aesthetic, scientific or economic point of view, its survival expectation and its rarity at the local and global level.

In these sense, the presence maintained or not of species listed in IUCN threat categories, both globally (for their entire distribution) and strictly for the region are indicators monitored and taken into account: "Extinct", "Extinct in the wild", "In critical danger", "In danger", "Vulnerable", "Threatened".

Special consideration is given to those species that the Ministry of Environment recommended for its inclusion in the "List of Priority Species for Conservation in Uruguay" (Soutullo et al, 2013). The presence maintained or not of species included in these list is one of the indicators monitored.

Flora Monitoring Plan

The first step towards the definition of HCV is the implementation of a program for the survey and characterization of environments and flora. For the purpose of establishing a priority list of properties to be studied, a grid is drawn up in which the sites are rated on a scale of 3 to 1 (High, Medium and Low respectively), in which attributes such as species richness (α diversity), diversity of environments as a potential for species turnover (β diversity), and ratio between non-forested area within the establishment in relation to the area occupied by forest crops were the selected indicators. The Conservation Importance Value that arises from the sum of the values of each of the attributes allowed a ranking of properties to be surveyed in more detail.

In the case of flora present, the monitoring plan includes annual surveys in order to evaluate:

- 1) Verification of species under the National Protection Area System list to assign conservation category.
- 2) Fragmentation of natural areas and biological corridors.

- 3) Buffer areas condition around HCV and particular interest for conservation areas.
- 4) Natural regeneration of woody invasive species, within both productive areas and native forest.
- 5) Invasive species control procedures are carried out in HCV areas.
- 6) General natural land condition, based on land use and land use management.

The monitoring plan also includes the variables surveyed on HCV sites regarding any presence of impact from the forestry activity as well as illegal activities. In this sense, indicators include: presence of vehicle tracks, invasion of exotic species, conservation state of the signs, among others, in order to ensure HCV protection. Additionally, hunting is prohibited in all BDU III lands¹⁰⁹, native forest are not altered and the silvicultural systems applied to artificial plantations meet the production targets approved by the competent authorities.

Moreover, level of degradation is monitored, in order to define the need for a restoration plan implementation. Although no degraded areas were identified that might require the implementation of restoration plans, based on the baseline studies, a plan for the elimination of invasive species (ELEI 2020 -2021¹¹⁰) was elaborated.

The project preserves areas of native forest, natural grassland with rocky outcrops and low meadows. These areas are mapped and identified and well known by the land's workers. Variables analyzed and results for La Hacienda are further detailed in Appendix 5. As of 2017, with the change in property landownership, the area has been conserved under same conditions but currently with no monitoring in place¹¹¹.


The biodiversity monitoring is in constant update and new properties are analyzed regarding its conservation interest and in some cases new areas within properties are identified as areas of HCV or APIC after an interest parties' consultation, and monitored accordingly. In this regard, during this monitoring period, no new HCV areas were identified, but areas of conservation were monitored internally. Farms such as Las Mimadas, Las Flacas, Matador, La Loma, El Italiano, Santa Hildara, Manolete and Quebra Yugo are part of this internal annual monitoring program on environmental conditions, illegal activity and biophysics for 2018 up to date, although they do not present HCV

¹⁰⁹ Only special authorization may be issued for hunting does animal species listed by the national Directorate for Renewable Natural Resources as of compulsory control, or control free of authorization



¹¹⁰ Invasive species management plan available to VVB in shared folder "Forest management"

¹¹¹ The property has not been FSC certified so no monitoring has been implemented yet. Anyway, under the precautionary principle, the area is still considered of HCV.



areas within the property. An example for 2022 report on Manolete can be seen in the figure below where information on different variables is monitored.

 AF	INFORME DE MONITOREO DE ZONA DE CONSERVACION / AAVC BIOFISICO O FUERA DE SITIO		Reg. 055 Revisión: 1 02/05/2022
PREDIO MONITOREADO: Manolete		FECHA: 04/07/2024	
¿Existe regeneración natural de Eucalyptus y Pinus en áreas no deseadas? No existe			
¿Existe poblaciones de otras especies vegetales invasoras dentro del monte natural? No existe			
¿Se observa ejecución de prácticas forestales extra rodiales invadiendo áreas de conservación? No se observa			
¿Estado de las áreas de campo natural (altura de horizonte de hojas en pasturas)? Buen estado con buen manejo de pastoreo controlado			
¿Se ubican los carteles identificando zonas de AAVC o BAVC, prohibido cazar y talar? Se ubica cartelera correspondiente			
¿Se visualiza alguna especie animal, en caso que si cuál? Se visualizan Aves varias.			
¿Hay canteras que se encuentren abiertas, con extracción de material? No se encuentran			
¿Los caminos y las zonas cercanas al predio se encuentran en condiciones de uso adecuado? Se encuentran en condiciones			
¿Los cortafuegos se encuentran mantenidos? Se encuentran con mantenimiento			
¿La plantación al bosque nativo repeta la distancia de 20 metros y 50 si hay curso de agua? Se respeta distancias legales			
¿Se visualizan huellas de máquinas que por sus dimensiones ocasionen impacto ambiental? No se observan huellas			
INFORME PRACTICAS ILEGALES: No hay.			
INFORME DE BIOFISICOS / FUERA DE SITIOS: No hay.			



Fotografías tomadas en el lugar "AREA DE CONSERVACION / AREA DE ALTO VALOR"

Fotografías tomadas en FUERA DE SITIO (Caminos vecinales próximos a predios)

Animales encontrados en la Zona DE CONSERVACIÓN O AAVC o huellas de animales

Jorge
Responsable del Monitoreo Perugorria

Figure 9. Internal annual monitoring spreadsheet example, for Manolete property

The following table (Table 6) shows some of the results for the surveys carried out during the monitoring period.

Table 6. Land conservation monitoring results for different properties

Conditions/ Properties	Las Mimadas (2022)	Las Flacas (2022)	Matador (2022)	La Loma (2022- 2023)	El Italiano (2022- 2024)	Santa Hildara (2022)	Manolete (2022-2023)	Quebra Yugo (2024)
Presence of unwanted natural revegetation of Pinus or Eucalyptus	No presence	No presence	No presence	A small amount	A small amount in both years	No presence	No presence during 2022. In 2023 it was also stated that If it occurs scheduled management will be performed.	No presence
Presence of invasive species within the natural forest	No presence	No presence	No presence	No presence	No presence	No presence	No presence in both surveys	No presence
Extra stand forestry practices observed invading conservation areas	No presence	No presence	No presence	No presence	No presence	No presence	No presence in both surveys	No presence

Conditions/ Properties	Las Mimadas (2022)	Las Flacas (2022)	Matador (2022)	La Loma (2022- 2023)	El Italiano (2022- 2024)	Santa Hildara (2022)	Manolete (2022-2023)	Quebra Yugo (2024)
Grassland conditions (erosion, soil cover %, etc)	Very good, 100% soil cover without erosion	Covered by grasslands, no erosion	Good, with proper controlled grazing management	Very good, 95% soil cover without erosion during 2022. In 2023 the soil cover was improved to 98%	Very good, 95% soil cover without erosion	Very good, 100% soil cover 2022 and 95% of soil cover during 2024. Erosion was not found neither in 2022 nor in 2024	Good in both surveys, with proper controlled grazing management. During 2023, it was mentioned that it was covered with pastures, without erosion.	Covered soils with controlled grassland
Signage conditions for hunting and fishing prohibition	Signage was in place	Signage was in place	Signage was in place	Signage was in place	Signage was in place	Signage was in place	Signage was in place during 2022 and 2023.	Signage was in place

Conditions/ Properties	Las Mimadas (2022)	Las Flacas (2022)	Matador (2022)	La Loma (2022- 2023)	El Italiano (2022- 2024)	Santa Hildara (2022)	Manolete (2022-2023)	Quebra Yugo (2024)
Animal sights	Wildlife observations include foxes, armadillos, hares, and several bird species.	Various bird species were seen	Various bird species were seen	No presence during 2022. In 2023 cattle were observed	No presence during 2022. In 2024 cattle were observed	Wildlife observations include foxes, armadillos, hares, and several bird species.	Various bird species were seen during 2022 and 2023.	Wildlife observations include foxes, armadillos, hares, and several bird species.
Firebreak conditions	Under maintenance	Good	Under maintenance	Good	Good	Under maintenance	Good	Good
Forest distances from water bodies	20 to 50 m buffer is respected	20 to 50 m buffer is respected	20 to 50 m buffer is respected	20 to 50 m buffer was respected in 2022 and in 2023	20 to 50 m buffer was respected in 2022 and in 2024	20 to 50 m buffer is respected	20 to 50 m buffer was respected in 2022 and in 2023	20 to 50 m buffer is respected

Conditions/ Properties	Las Mimadas (2022)	Las Flacas (2022)	Matador (2022)	La Loma (2022- 2023)	El Italiano (2022- 2024)	Santa Hildara (2022)	Manolete (2022-2023)	Quebra Yugo (2024)
Machinery tracks which may have negative impacts	No presence	No presence	No presence	No presence	No presence	No presence	No presence	No presence

DRAFT

Moreover, within the project zone, other HCV areas can be identified in farms under AF's management but outside project area boundary which have not been impacted by the project's activity, and monitored according to the monitoring plan in place. These are: La Jangada and Las Grutas. Monitoring results for La Jangada, as an example, can be seen in Appendix 5 and complete reports are available during verification. Figures 10 shows the results for La Jangada throughout the years, showing no negative impact from the activity. Although fewer species were detected in the current period than in the previous one, the cumulative total increased. The species detected are not the same, with new species being added to the lists. If the trend of the cumulative total is analyzed, the increase may be explained due to the accumulation of effort in successive campaigns, but if the total values for each Class are analyzed, in each period, it is clear that the environments contained in the HCV area have not degraded or lost connectivity, and they appear to remain in good condition and have even evolved positively (as a result of management, which ranges from livestock numbers, the distance at which commercial crops are grown, access control, hunting restrictions, fire control, etc.).

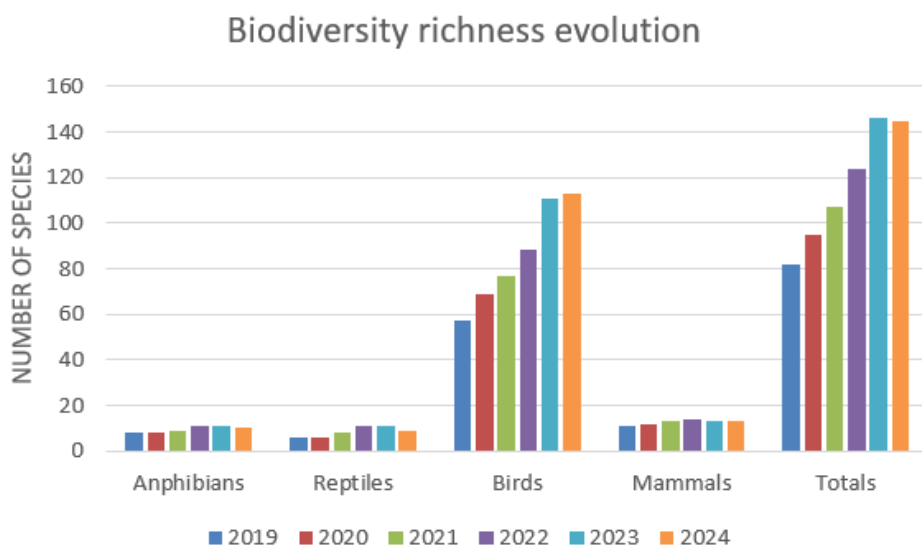


Figure 10. La Jangada biodiversity richness evolution for tetrapod class for years 2019 to 2024 and accumulated total.

Regarding Las Grutas, the overall state of conservation is satisfactory, confirming the presence of Representative Areas (RA) and two sectors with High Conservation Values (HCV) with respect to flora due to the presence of rare fern species (HCV 1.2). These are monitored using fixed monitoring sites reported in figure 11. The mentioned species are reported in figure 12 as SNAP category 1, which represent endemic species of Uruguay and the Uruguayan region (southern Rio Grande do

Sul in Brazil and eastern part of Entre Ríos in the Argentine Republic). Moreover, one vulnerable IUCN species has been identified during 2024¹¹².

SITIO	LATITUD	LONGITUD	VEGETACIÓN PREDOMINANTE
LG 1	32°39'35.70"S	55° 9'26.20"O	Campos de cornisas de arenisca
LG 2	32°40'41.00"S	55° 9'8.90"O	Campos de bajos y bosque nativo
LG 3	32°40'3.10"S	55° 8'42.50"O	Campos de bajos y bosque nativo
LG 4	32°39'45.23"S	55° 8'42.46"O	Campos de bajos y bosque nativo
LG 6	32°39'45.76"S	55° 8'9.73"O	Bosque de quebrada

Figure 11. Las Grutas´ fixed monitoring sites

FAMILIA	GÉNERO	EPÍTETO	SNAP	UICN	CITES
CACTACEAE	<i>Cereus</i>	<i>hildmannianus</i>		LC	Ap II
CACTACEAE	<i>Frailea</i>	<i>castanea</i>	1	LC	Ap II
CACTACEAE	<i>Parodia (=Notocactus)</i>	<i>mammulosa</i>		LC	Ap II
CACTACEAE	<i>Parodia (=Notocactus)</i>	<i>ottonis</i>		VU	Ap II
CACTACEAE	<i>Parodia (=Wigginsia)</i>	<i>corynodes</i>	1	LC	Ap II
CACTACEAE	<i>Parodia (=Wigginsia)</i>	<i>erinacea</i>		LC	Ap II
CACTACEAE	<i>Parodia (=Wigginsia)</i>	<i>tephracantha</i>	1	LC	Ap II
CACTACEAE	<i>Rhipsalis</i>	<i>lumbricoides</i>		LC	Ap II
ORCHIDACEAE	<i>Capanemia</i>	<i>micromera</i>		NA	Ap II
ORCHIDACEAE	<i>Cyclopogon</i>	<i>Sp.</i>		-	Ap II
ORCHIDACEAE	<i>Pelexia</i>	<i>macropoda</i>		NA	Ap II
ORCHIDACEAE	<i>Stigmatosema</i>	<i>polyaden</i>		NA	Ap II

Figure 12. Las Gruta´s IUCN classification species identified in 2024 monitoring.

5.3.2 Biodiversity Monitoring Plan Dissemination (CCB, B4.3)

Annually, the Monitoring report is updated in the BDU webpage¹¹³ (and previously in the Cambium webpage) including a summary of the biodiversity monitoring report results. The whole document can also be accessed by request. Uruguay has 91% of population with access to internet. Moreover, in the project zone there are present the “MEC centers”¹¹⁴. These are public training centers for, among others, IT technology and providing infrastructure for public access to internet, the same as

¹¹² Monitoring reports available in shared folder “biodiversity”

¹¹³ Available at: <https://www.bosquesdeluruguay.com/media/2025/06/AF-Impact-Report-2024.pdf>

¹¹⁴ INE (2022). Encuesta de Usos de Tecnologías de la Información y Comunicación 2022.

public schools, where internet access is free¹¹⁵. This information is also presented to interested stakeholders where the category classification or re-classification of the HCV is defined during public consultation. Moreover, biodiversity presentations are conducted at schools for both teachers and students in the project zone.

A summary of the monitoring reports is disseminated to local communities, during each verification period, during face-to-face interviews and presentations at rural schools, communicated through local media and personal communication means (telephone, WhatsApp and mail). Also, the full project documentation is published on BDU III website for public comments, together with specific brochures describing the project characteristics and benefits.

Along with the project implementation, the project documentation will be published on VCS and CCB websites for all stakeholders, so that they can obtain detailed project information and development progress. Also, the summary of project description in local language is also disseminated to local communities, as well as the summary of monitoring reports during each verification.

5.4 Optional Criterion: Exceptional Biodiversity Benefits

Not applicable as the project has not validated at the Gold Level for exceptional biodiversity benefits.

5.4.1 Trigger Species Population Trends (CCB, GL3.2, GL3.3)

Trigger Species	Not applicable
With-project Scenario	Not applicable

¹¹⁵ Total list of centers including those within project zone available at: <https://www.gub.uy/ministerio-educacion-cultura/listado-de-centros>

APPENDIX 1: NEW PROJECT AREAS AND STAKEHOLDERS

Not applicable as it is not a grouped project. Stakeholders are updated annually, based on contact information but no new community groups were identified.

The list is available for VVB during verification in shared folder "Community".

APPENDIX 2: PROJECT RISKS TABLE

	Identified risk(s)	Potential impact of risk on stakeholders, ecosystem health, and biodiversity	Mitigation or preventative measure(s) taken
Natural and human induced risks to stakeholders' wellbeing	Fire Road destruction	Community well-being impacted regarding circulation in rural roads, dust and possible fires	See section 2.2.7 for more detail
Risks to stakeholder participation	No risk identified		As mentioned, the implementing partner has a long-lasting experience working with the stakeholders in the project zone, and the project does not represent a risk to the current programs and activities in place with the communities, but it further enhances them, allowing new interactions for example, with referents in the area.
Working conditions	Personal accidents	See section 2.3.15 and 2.3.17	First, there is a risk assessment in place for the different silvicultural activities to take place. Second, as part of the contingency and prevention plan, there is a training plan for forestry personnel that details the schedule for the year with the topics to be taught, the person in charge and the procedure to be applied. This is mandatory for all workers and collaborators in S&H. Personal security equipment is provided as well.

			<p>Third, operations are monitored monthly in terms of environmental, S&H, social, and operating procedures through a system of nonconformities and corrective action requests, which allows the project proponent to identify deviations, determine their causes, corrective and preventive actions, and deadlines for their correction. The monitoring and surveillance of inputs, products and services is carried out by means of a system of registration and administrative control during operations.</p>
Safety of women and girls	No risk identified		<p>There are no specific risks to women and girls' safety due to the project implementation. The project is implemented in a current productive private land in a rural area with limited number of neighbours.</p>
Safety of minority and marginalized groups, including children	No risk identified		<p>There are no specific risks to minority and marginalized groups, including children due to the project implementation. The project is implemented in a current productive private land.</p>

<p>Pollutants (air, noise, discharges to water, generation of waste, and release of hazardous materials and chemical pesticides and fertilizers)</p>	<p>Potential spills</p>	<p>Hazardous substances are used, handled, and stored during the production process, during which time occasional spills could occur. These risks are internal and, depending on their magnitude, may be low to medium risk. Within this group of substances, hydrocarbons are used during all stages of the production process for the movement of vehicles and machinery, and agrochemicals/ phytosanitary products are used to control weeds and pests, mainly during the first stage of the process. The potential environmental impacts, depending on where the spill occurs, the magnitude of the spill, and the type of substance, would be on the soil, water, and biota associated with these factors. Potential social impacts could be linked to the S&H of personnel and the neighbouring community, depending on the case.</p>	<p>AF implements an Agrochemicals management Program which establishes the guidelines and safe work standards for the reception, loading, unloading, storage, handling, application and final disposal of phytosanitary products. Some of the measures include different storage places for inputs based on their composition and dangerous substances content, such as hydrocarbons and/or agrochemicals. These storages are specially conditioned for their purpose, duly signposted, with signage indicative of the place and the risks associated with the stored input. These storage facilities, and in particular phytosanitary storage tanks, are placed at safe distances from other facilities, such as houses, populated areas, and watercourses.</p> <p>The workers have PPE for handling dangerous substances and elements to act in emergency situations. Also, de access to storage places and the handling of dangerous substances is responsibility of authorized personnel. This people is trained to different types of waste in its classification, collection, transfer, treatment and final disposal.</p>
<p>Discrimination</p>	<p>No risk identified</p>		<p>The project proponent or any other entity involved in project design or implementation is not involved in any form of discrimination or sexual harassment. AF is a registered company, compliant with local and national regulations regarding discrimination (National Law 17,817 (2004) – Combating Racism, Xenophobia and All Forms of Discrimination; and National Law</p>

<p>Sexual harassment</p>	<p>No risk identified</p>	<p>18.104 (2007) – Equality of Rights and Opportunities between Men and Women; National Labor Code which prohibits discrimination in employment and occupation on various grounds, aligned with ILO standards, among others), with the regarding registration certifications as evidence. Moreover, non-discrimination is part of the company's policy, providing same working opportunities without gender, colour or religion considerations¹¹⁶. At the same time, being an FSC certified company, evidence of law compliance is certified¹¹⁷.</p> <p>The project proponent or any other entity involved in project design or implementation is not involved in any form of discrimination or sexual harassment. AF is a registered company, compliant with local and national regulations regarding discrimination (National Law 17,817 (2004) – Combating Racism, Xenophobia and All Forms of Discrimination; and National Law 18.104 (2007) – Equality of Rights and Opportunities between Men and Women; National Labor Code which prohibits discrimination in employment and occupation on various grounds, aligned with ILO standards, among others), with the regarding registration certifications as evidence. Moreover, non-discrimination is part of the company's policy, providing same working opportunities without</p>
---------------------------------	---------------------------	--

¹¹⁶ Evidence for VVB during verification and information on company's policy in the Forest Management plan in shared folder "Forestry Management Plan"

¹¹⁷ FSC certification in shared folder "FSC"

<p>Equal pay for equal work</p>	<p>No risk identified</p>	<p>gender, colour or religion considerations¹¹⁸. At the same time, being an FSC certified company, evidence of law compliance is certified¹¹⁹.</p> <p>AF has been granted the “Best place to work” award both general and for women, showing its commitment towards gender equality. In 2022, AF was ranked 16th among the best companies in Uruguay for women to work at¹²⁰, and in 2024, it was also recognized by Great Place to Work® as 77% of employees reported that this is an excellent place to work¹²¹.</p>
<p>Gender equity in labor and work</p>	<p>No risk identified</p>	<p>Non-discrimination is part of the company's policy, providing same working opportunities without gender, colour or religion considerations¹²². At the same time, being an FSC certified company, gender equity in labour and work has been worked on and accomplished.</p> <p>Moreover, as mentioned AF has been granted the “Best place to work” award both general and for women, showing its commitment towards gender equality. In 2022, AF was ranked 16th among the best companies in Uruguay for women</p>

¹¹⁸ Evidence for VVB during verification and information on company's policy in the Forest Management plan in shared folder "Forest Management"

¹¹⁹ FSC certification in shared folder "FSC"

¹²⁰ <https://www.greatplacetowork.com.uy/listas/los-mejores-lugares-para-trabajar-para-mujeres-en-uruguay/2022>

¹²¹ <https://certificaciones.greatplacetowork.com.uy/agroempresa-forestal>

¹²² Evidence for VVB during verification and information on company's policy in the "Forestry Management Plan"

<p>Forced labor¹²⁵</p>	<p>No risk identified</p>	<p>to work at¹²³, and in 2024, it was also recognized by Great Place to Work® as 77% of employees reported that this is an excellent place to work¹²⁴.</p> <p>As previously mentioned, the project proponent or any other entity involved in project design or implementation is not involved in any form of discrimination or sexual harassment, neither human trafficking, forced labor, and child labor. AF is a registered company, compliant with local and national regulations regarding working conditions discrimination (National Law 17,817 (2004) – Combating Racism, Xenophobia and All Forms of Discrimination; and National Law 18.104 (2007) – Equality of Rights and Opportunities between Men and Women; National Labor Code which prohibits discrimination in employment and occupation on various grounds, aligned with ILO standards, among others),, with the regarding registration certifications as evidence. At the same time, being an FSC certified company, evidence of law compliance is certified¹²⁶.</p>
<p>Child labor</p>	<p>No risk identified</p>	<p>As previously mentioned, the project proponent or any other entity involved in project design or implementation is not involved in any form of discrimination or sexual harassment, neither</p>

¹²³ <https://www.greatplacetowork.com.uy/listas/los-mejores-lugares-para-trabajar-para-mujeres-en-uruguay/2022>

¹²⁴ <https://certificaciones.greatplacetowork.com.uy/agroempresa-forestal>

¹²⁵ The identified risks and commensurate mitigation or preventative measure(s) for forced labor, child labor, and human trafficking, must be inclusive of staff and contracted workers employed by third parties.

¹²⁶ FSC certification in shared folder "FSC"

Human trafficking	No risk identified	<p>human trafficking, forced labor, and child labor. AF is a registered company, compliant with local and national regulations regarding working conditions (besides the legislation previously mentioned in this section National Law 17.823 (2004) establishes 15 as the minimum age for employment, in line with ILO standards and prohibits hazardous work for anyone under 18; Uruguay has also ratified ILO convention 138 and 182), with the regarding registration certifications as evidence. At the same time, being an FSC certified company, evidence of law compliance is certified¹²⁷.</p> <p>As previously mentioned, the project proponent or any other entity involved in project design or implementation is not involved in any form of discrimination or sexual harassment, neither human trafficking, forced labor, and child labor. AF is a registered company, compliant with local and national regulations regarding working conditions discrimination (National Law 17,817 (2004) – Combating Racism, Xenophobia and All Forms of Discrimination; and National Law 18.104 (2007) – Equality of Rights and Opportunities between Men and Women; National Labor Code which prohibits discrimination in employment and occupation on various grounds, aligned with ILO standards, among others), with the regarding registration certifications as evidence. At the same time,</p>
-------------------	--------------------	--

¹²⁷ FSC certification in shared folder "FSC"

<p>Recognition of, respect of, and promotion of the rights to IPs, LCs and customary rights holders</p>	<p>No risk identified</p>	<p>being an FSC certified company, evidence of law compliance is certified¹²⁸.</p> <p>All the land is privately owned by the BDU III and II Trust Fund. The farms included in the Forteko project within the BDU III and II Trust Fund belong to the group of investors who acquired the forests as of 2017. Since these lands are all legal forestry land, the ownership is clear, and there is no dispute over land ownership in the project site.</p> <p>Even though it is a subject of debate among different historians, the historical reports of the different auditing houses that certify in Uruguay indicate that there is no indigenous population according to the definitions of FSC. Only a new stream of people who have recognized themselves as descendants of indigenous communities, but who currently reside in cities¹²⁹.</p>
<p>Preserving and protecting cultural heritage</p>	<p>No risk identified</p>	<p>In line with national legislation and FSC certification, cultural heritage is identified, conserved and monitored if found within the project area. This is not the case for BDU III where no cultural heritage was identified.</p>

¹²⁸ FSC certification in shared folder "FSC"

¹²⁹ Roque Roldán's estimate for a paper for the Inter-American Development Bank, presented in Fortaleza in March 2002 based on ILO data, estimated its total number at only 524 (0.02% of the Uruguayan population).

Protecting and preserving property rights, customary rights, or protecting legal or customary tenure/access rights to territories, property, and resources, including collective and/or conflicting rights	No risk identified		<p>All the land is privately owned by the BDU III and II Trust Fund. The farms included in the Forteko project within the BDU III and II Trust Fund belong to the group of investors who acquired the forests as of 2017. Since these lands are all legal forestry land, the ownership is clear, and there is no dispute over land ownership in the project site.</p> <p>Private owners voluntarily sold the lands to project owners, therefore the project activities will not lead to involuntary removal or relocation of property rights holders from their lands or territories, and does not force rights holders to relocate activities important to their culture or livelihood. Cattle breeding activity owners are invited to continue the activity within the property once the trees are 2-3 years, to avoid damages. This is done through signed agreements.</p>
Impacts on biodiversity and ecosystems	Land use change	Biodiversity loss	<p>The project area has been historically converted due to extensive cattle breeding degrading the area and no ecosystem conversion takes place as part of the project activity, in line with the applicability conditions of VCS standard.</p> <p>Still the project has a project impact analysis, which includes harvesting activities, and a mitigation plan in order to avoid further impacts.</p>
Soil degradation and soil erosion	Soil contamination	Low significance impacts to soil contamination was found from the	<p>Operative procedures in place to assure a correct use of agrochemicals avoiding all risk of contamination and leak to water and soil.</p>

Water consumption and stress	Water contamination	EIA to the properties due to agrochemicals use.	Water physicochemical analysis is conducted and phreatic levels are measured.
		Low significance impacts to water contamination was found from the EIA to the properties due to agrochemicals use.	<p>It is well known that planting trees on a grassland site usually causes a reduction in the runoff and an increase in evapotranspiration. This might cause some competition for water with other users (e.g, cattle farms located downstream in the watersheds, hydroelectric power generation, and water for human consumption). Some studies (e.g. Silveira et al., 2006¹³⁰) have shown that this effect is not significant in Uruguay at the medium-size watershed scale (due to high precipitation). At the micro-watershed level, this effect can be minimized by plantation design (e.g. by limiting the extent of forest plantations in a watershed)¹³¹. The proposed project leaves at least 35-40% of the land area unplanted, which would greatly reduce the hydrological effects, as compared with a more common 25- 30% of unplanted area. In addition, since most of the project area flows into rivers with relatively high flow rate, no significant downstream effects are expected.</p> <p>Moreover, operative procedures in place to assure a correct use of agrochemicals avoiding all risk of contamination and leak to water and soil. Water physicochemical analysis is conducted and phreatic levels are measured.</p>

¹³⁰ Silveira, L., Alonso, J., y Martínez, L. 2006. Efecto de las plantaciones forestales sobre el recurso agua en el Uruguay. Agrociencia (2006) Vol. X N°2 pág. 75-93

¹³¹ Nosetto, M. & Jobbagy, G. (2016) Análisis del impacto hídrico de la expansión forestal en cuencas de Uruguay at Sociedad de Productores Forestales Uruguay

<p>Habitats (and areas needed for habitat connectivity) for rare, threatened, and endangered species</p> <p>Areas needed for habitat connectivity</p>	No risk identified	<p>See section 4.2.1</p> <p>Identification, conservation and monitoring of these areas takes place in line with FSC certification, as described in section 5.1.3</p>
	No risk identified	<p>Biodiversity analysis are conducted for the properties, taking into consideration national conservation criteria: The environmental characteristics of the properties are analyzed with the aim of identifying sensitive areas both for their tetrapod biodiversity and for the environments they represent (STAGE 1). Subsequently, those selected as of potential interest of diversity values are visited and analyzed in greater depth (STAGE 2), seeking to detect High Conservation Value Sites and/or internal conservation areas.</p> <p>The analysis includes 1) links between each establishment and national conservation strategies (SGM grids prioritized for conservation, 20% of the national territory, protected wilderness areas of the National System SNAP) and international strategies (Areas of Importance for Bird Conservation). 2) the location of each establishment in relation to biological connections (biological corridors) and their integration into watersheds of recognized value for the conservation of biodiversity.</p> <p>See section 5.1.3</p>

Invasive species	No risk identified	Non-native species used in the plantations (Eucalyptus) are not considered an invasive species by national government ¹³² , still a monitoring and invasion control is in place in line with the company's forest management plan. See section 5.1.6
Ecosystem conversion	No risk identified	The project area has been historically converted due to extensive cattle breeding degrading the area and no ecosystem conversion takes place as part of the project activity, in line with the applicability conditions of VCS standard.

¹³² https://www.gub.uy/ministerio-ambiente/sites/ministerio-ambiente/files/documentos/publicaciones/CEEI_Invasiones%20Biologicas_WEB.pdf

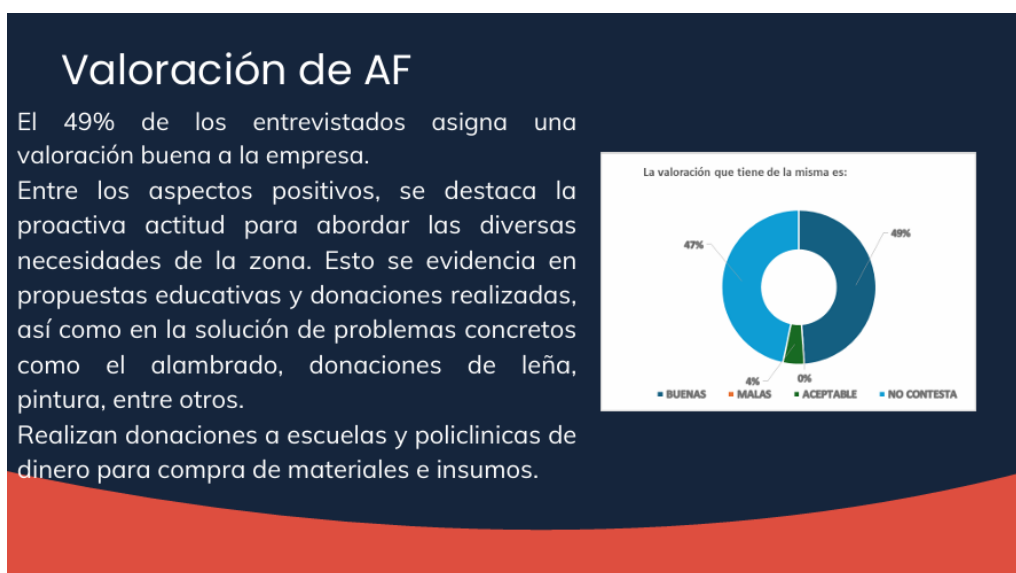
APPENDIX 3: COMMERCIALY SENSITIVE INFORMATION

Section	Information	Justification
N/A	N/A	N/A

APPENDIX 4: COMMUNITY MONITORING RESULTS

Some of the project's impact survey results, conducted annually to neighbours and interested parties¹³³

AF valorization



Impact over job opportunities

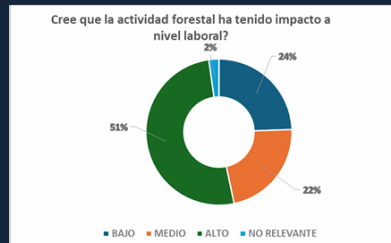
¹³³ Full report available for VVB during verification in shared folder "Community impacts"

Impacto Laboral

El 73% de los entrevistados cree que el impacto laboral ha sido significativo.

Se identifica impacto en el aumento del trabajo formal.

Consideran que se requieren puestos de trabajo con personal calificado de nivel educativo alto y también personal no calificado de nivel educativo medio a bajo. Siendo las contrataciones de personal de la zona especialmente no calificado, para momentos de plantación.



APPENDIX 5: BIODIVERSITY MONITORING RESULTS

HCV monitoring conditions at La Hacienda farm till 2015

Date	Contact responsible of monitoring	Findings	Recommendations
21/03/2011	Luciana Nauar	Field tillage planning was carried out in the vicinity of the creek, to guarantee compliance with the 20 meters distance to the native forest. The contractor and workers were trained on the value of the “Quebrada de Los Loros” and in order not to intervene in that area.	Verify during forestry activities the compliance with the minimum distance to native forests.
29/08/2013	Luciana Nauar	<ul style="list-style-type: none"> • HCV maintained without visible alterations • Planting distances are maintained, buffer zone without alterations • A differential management is carried out regarding grazing, with a lower load of animals. • There has been no sighting of parrots 	No recommendations
10-12/12/2013	Carlos Brussa	<p>The floristic surveys up to date have identified the presence of 345 total species, among which 13 are considered priority according to SNAP lists.</p> <p>The general conservation condition of the area is satisfactory, achieving high diversity for the different represented ecosystems.</p>	<p>-Forested are management should not affect conservation areas.</p> <p>-Transit outside roads and plantation borders should be avoided, especially in lowlands areas.</p>

			<p>-Plantation areas should be designed to have defined borders, avoiding ramifications of low area.</p> <p>-Respect corridors of the areas to be conserved.</p> <p>-Special precaution in the use of agrochemicals.</p> <p>-Bear in mind design of camps and accumulation sites without affecting conservation areas</p> <p>-Implement strict control over natural revegetation of non-native species.</p>
18/09/2014	Luciana Nauar	<p>A fixed monitoring plot (400 m2) was implemented, where the flora and indicators were surveyed:</p> <ul style="list-style-type: none"> • Presence of natural regeneration in different strata • Undergrowth • Percentage of land covered • Presence of epiphytic / parasitic species • Presence of climbers • Indicators of felling or burning • Presence of invasive species of importance 	<p>Suggestions or observations:</p> <p>Continue with annual monitoring and the prevention measures indicated in the data sheet from September 2014 monitoring</p>

		Conclusion: the monitoring conditions of December 2013 are maintained.	
15/09/2015	Luciana Nauar	<p>The sighting of Parrots Chiripepe and sounds of different individuals is confirmed, which confirms one of the attributes for the conservation of the area (HCV1)</p> <p>The monitoring conditions of December 2013 are maintained, insofar as a well-preserved area, without alterations resulting from forestry operations or other activities.</p>	<p>Continue with annual monitoring and the prevention measures indicated in the data sheet.</p> <p>September 2015 monitoring.</p>

Complete surveys are not available due to lack of access to information from previous owners, only available summary monitoring reports.

La Jangada monitoring results 2019-2024

Mammals:

2020	2021	2022	2023	2024	2025	Nombre científico	Nombre Común	Global	Prioritarias
X	X	X	X	X	X	<i>Cavia aperea</i>	Apereá Común		
X	X	X	X		X	<i>Cercyon thous</i>	Zorro Perro		X
		X				<i>Coendou spinosus</i>	Coendú		X
X	X	X	X	X	X	<i>Conepatus chinga</i>	Zorillo		
	X	X	X	X	X	<i>Ctenomys torquatus</i>	Tucu-tucu Común		
X	X	X	X	X	X	<i>Dasypus hybridus</i>	Mulita		X
X	X	X	X	X		<i>Dasypus novemcinctus</i>	Tatú		X
				X		<i>Didelphis albiventris</i>	Comadreja Mora		
			X		X	<i>Eumops bonariensis</i>	Murciélago Orejas Anchas		
X			X	X		<i>Galictis cuja</i>	Hurón		
			X		X	<i>Histiotus montanus</i>	Murciélago Orejudo		
X	X	X	X	X	X	<i>Hydrochoerus hydrochaeris</i>	Carpincho		X
					X	<i>Lasiurus blossevillii</i>	Murciélago Colorado		
			X		X	<i>Lasiurus cinereus</i>	Murciélago Escrchado		
X	X	X	X		X	<i>Leopardus geoffroyi</i>	Gato Montés		X
X	X	X		X		<i>Lontra longicaudis</i>	Lobito de Río		X
	X	X	X		X	<i>Lycalopex gymnocercus</i>	Zorro Gris		X
X	X	X	X	X	X	<i>Mazama gouazoubira</i>	Guazubirá		
			X		X	<i>Molossus molossus</i>	Moloso Común		
X	X	X	X	X	X	<i>Myocastor coypus</i>	Nutria		X
X	X	X	X	X	X	<i>Procyon cancrivorus</i>	Mano Pelada		
			X		X	<i>Tadarida brasiliensis</i>	Murciélago Cola de Ratón		
		X				<i>Tamandua tetradactyla</i>	Tamandúa		X

Reptiles:

2019	2020	2021	2022	2023	2024	Nombre científico	Nombre común	Global	Prioritarias	Lista roja
1					1	<i>Acanthochelys spixii</i>	Tortuga de Canaleta		1	LC
	1		1	1		<i>Amphisbaena darwinii</i>	Víbora Ciega de Darwin			LC
					1	<i>Boiruna maculata</i>	Musurana		1	LC
	1	1	1	1		<i>Bothrops alternatus</i>	Víbora de la Cruz		1	LC
		1		1	1	<i>Cercosaura schreibersii</i>	Camaleón Marrón			LC
			1	1		<i>Hydromedusa tectifera</i>	Tortuga Cabeza de Víbora			LC
			1		1	<i>Liophis jaegeri</i>	Culebra Verde de Viente Rojo			LC
1		1	1	1	1	<i>Liophis poecilopyrus</i>	Culebra de Peñarol			LC
	1	1	1	1	1	<i>Lygophis anomalus</i>	Culebra de Líneas Amarillas			LC
			1		1	<i>Mabuya dorsivittata</i>	Lagartija Brillante			LC
1						<i>Oxyrhopus rhombifer</i>	Falsa Coral			LC
		1	1	1		<i>Philodryas aestiva</i>	Culebra Verde Esmeralda			LC
1	1	1	1	1		<i>Philodryas patagoniensis</i>	Parejera			LC
				1		<i>Phrynosoma hilarii</i>	Campanita			LC
	1	1	1	1	1	<i>Trachemys dorbigni</i>	Morrocuyo			LC
1	1	1	1	1	1	<i>Tupinambis merianae</i>	Lagarto		1	LC
5	6	8	11	11	9					

Birds:

2019	2020	2021	2022	2023	2024	Nombre científico	Nombre común	Residencia	UICN Regional	UICN Global	Prioritarias
					1	<i>Accipiter striatus</i>	Gavilán Chico	R			
	1	1	1	1	1	<i>Agelaius ruficapillus</i>	Garibaldino	R			
				1	1	<i>Ajaia ajaja</i>	Espátula Rosada	R			
		1			1	<i>Alopochelidon fucata</i>	Golondrina Cara Rojiza	RE			
1	1	1	1	1	1	<i>Amazonetta brasiliensis</i>	Pato Brasileiro	R			
1				1	1	<i>Amblyrhynchus holosericeus</i>	Federal	R	VU		1
1	1	1	1	1	1	<i>Ammodramus humeralis</i>	Chingolo Ceja Amarilla	R			
	1	1		1	1	<i>Anas flavirostris</i>	Pato Barcino	R			
		1	1	1		<i>Anas georgica</i>	Pato Maicero	R			
1			1	1	1	<i>Anas sibilatrix</i>	Pato Overo	R			
1		1		1		<i>Anas versicolor</i>	Pato Capuchino	R			
1	1	1		1	1	<i>Anthus furcatus</i>	Cachirla Común	R			
1	1	1	1	1	1	<i>Anumbius annumbi</i>	Espinero	R			
	1			1		<i>Aramides cajanea</i>	Chiricote	R			
1	1	1	1	1	1	<i>Aramides ypecaha</i>	Gallineta Grande	R			
	1	1	1	1	1	<i>Aramus guarauna</i>	Carao	R			1
		1			1	<i>Aratinga acuticaudata</i>	Loro Cabeza Azul	R			
				1		<i>Aratinga leucophthalmus</i>	Loro Maracanã	R			
	1		1	1	1	<i>Ardea cocoi</i>	Garza Mora	R			
1	1	1	1	1	1	<i>Ardeola ibis</i>	Garza Bueyera	R			
		1	1	1	1	<i>Basileuterus culicivorus</i>	Arañero Chico	R			
1	1		1	1	1	<i>Basileuterus leucoblepharus</i>	Arañero Oliváceo	R			
				1		<i>Botaurus pinnatus</i>	Mirasol Grande	R			
					1	<i>Buteo albicaudatus</i>	Águila Cola Blanca	RE			
1	1	1	1	1	1	<i>Buteo magnirostris</i>	Gavilán Común	R			
	1	1		1	1	<i>Buteo swainsoni</i>	Águilucho Langostero	VE			1
				1		<i>Calidris melanotos</i>	Playerito Pecho Gris	VE			
					1	<i>Caprimulgus parvulus</i>	Dormilón Chico	RE			
1	1	1	1	1	1	<i>Carduelis magellanica</i>	Cabecitanegra	R			
				1	1	<i>Cariama cristata</i>	Seriema	R			1
	1	1	1		1	<i>Casmerodius albus</i>	Garza Blanca Grande	R			
1		1	1	1	1	<i>Cathartes aura</i>	Cuervo Cabeza Roja	R			
					1	<i>Cathartes burrovianus</i>	Cuervo Cabeza Amarilla	R			
	1		1			<i>Certhiaxis cinnamomeus</i>	Curutí Colorado	R			
			1	1	1	<i>Ceryle torquata</i>	Martín Pescador Grande	R			
1			1	1	1	<i>Chauna torquata</i>	Chajá	R			

2019	2020	2021	2022	2023	2024	Nombre científico	Nombre común	Residencia	UICN Regional	UICN Global	Prioritarias
1		1	1	1	1	<i>Chloroceryle amazona</i>	Martín Pescador Mediano	R			
	1	1	1			<i>Chloroceryle americana</i>	Martín Pescador Chico	R			
1	1	1	1	1	1	<i>Chlorostilbon aureoventris</i>	Picaflor Verde	RE			
				1		<i>Ciconia maguari</i>	Cigüeña Común	R			
					1	<i>Cinclodes fuscus</i>	Remolinera	VI			1
1	1	1	1	1	1	<i>Colaptes campestris</i>	Carpintero de Campo	R			
1	1	1	1	1	1	<i>Colaptes melanochloros</i>	Carpintero Nuca Roja	R			
1	1	1	1	1	1	<i>Columba maculosa</i>	Paloma Ala Manchada	R			
1	1	1	1	1	1	<i>Columba picazuro</i>	Paloma de Monte	R			
	1	1	1			<i>Coryphospingus cucullatus</i>	Brasita de Fuego	R			1
	1	1	1	1	1	<i>Cranioleuca pyrrhophia</i>	Trepadorcito	R			
1		1	1	1	1	<i>Cyanocorax chrysops</i>	Urraca Común	R			
						<i>Cyanoloxia glaucocaeerulea</i>	Azulito	RE			
	1	1	1	1	1	<i>Cyclarhis gujanensis</i>	Juan Chiviro	R			
			1	1		<i>Dendrocoryna viduata</i>	Pato Cara Blanca	R			
				1	1	<i>Donacospiza albifrons</i>	Monterita Cabeza Gris	R			1
1	1	1	1	1	1	<i>Egretta thula</i>	Garza Blanca Chica	R			
1	1	1	1	1	1	<i>Elaenia parvirostris</i>	Fiofio Pico Corto	RE			
1	1	1	1	1	1	<i>Embernagra platensis</i>	Verdón	R			
1	1	1	1	1	1	<i>Falco sparverius</i>	Halcóncito Común	R			
			1	1		<i>Fulica armillata</i>	Gallareta Grande	R			
				1		<i>Fulica leucoptera</i>	Gallareta Ala Blanca	R			
	1					<i>Fulica rufifrons</i>	Gallareta Escudete Rojo	R			
1	1	1	1	1	1	<i>Furnarius rufus</i>	Hornero	R			
	1	1	1	1	1	<i>Gallinago paraguaiiae</i>	Becasina	R			
			1			<i>Gallinula chloropus</i>	Polla de Agua	R			
				1		<i>Geothlypis aequinoctialis</i>	Arañero Cara Negra	RE			
1	1	1	1	1	1	<i>Guiraca guiraca</i>	Piríncho	R			
			1	1	1	<i>Harpiprion caerulescens</i>	Bandurria Mora	R			
				1		<i>Heterospizias meridionalis</i>	Águila Colorada	R			
	1	1	1			<i>Himantopus mexicanus</i>	Tero Real	R			
				1		<i>Hirudinea ferruginea</i>	Viudita Colorada	RE			
	1	1	1	1	1	<i>Hydropsalis brasiliana</i>	Dormilón Tijereta	RE			
				1	1	<i>Hylocharis chrysura</i>	Picaflor Bronceado	R			
1		1		1	1	<i>Icterus cayanensis</i>	Boyerín	R			
1		1		1	1	<i>Jacana jacana</i>	Gallito de Agua	R			
2019	2020	2021	2022	2023	2024	Nombre científico	Nombre común	Residencia	UICN Regional	UICN Global	Prioritarias
					1	<i>Knipolegus cyanirostris</i>	Viudita Negra Común	R			
1	1		1	1	1	<i>Larus maculipennis</i>	Gaviota Capucho Café	R			
	1	1	1	1	1	<i>Leptotila verreauxi</i>	Paloma Montaraz Común	R			
				1	1	<i>Lessonia rufa</i>	Sobrepuesto	VI			
				1	1	<i>Lochmias nematura</i>	Macuquño	R			1
1	1	1	1	1	1	<i>Machetornis rixosus</i>	Margarita	R			
1	1	1	1	1	1	<i>Milvago chimango</i>	Chimango	R			
1	1	1	1	1	1	<i>Mimus saturninus</i>	Calandria	R			
1	1	1	1	1	1	<i>Molothrus badius</i>	Músico	R			
1		1	1	1	1	<i>Molothrus bonariensis</i>	Tordo Común	R			
	1	1	1	1	1	<i>Myiopsitta monachus</i>	Cotorra	R			
			1	1	1	<i>Nothura maculosa</i>	Perdiz	R			1
			1	1	1	<i>Notiochelidon cyanoleuca</i>	Golondrina Azul Chica	RE			
1			1			<i>Otus choliba</i>	Tamborcito Común	R			
					1	<i>Pachyrhamphus polychropterus</i>	Anambé Negro	RE			
1	1	1	1	1	1	<i>Paroaria coronata</i>	Cardenal Copete Rojo	R			1
1		1	1	1	1	<i>Parula pitiayumi</i>	Pitiayumí	R			
1	1	1	1	1	1	<i>Penelope obscura</i>	Pava de Monte	R			
				1	1	<i>Phalacrocorax brasilianus</i>	Biguá	R			
				1	1	<i>Phimosus infuscatus</i>	Cuervillo Cara Pelada	R			
				1	1	<i>Phileocryptes melanops</i>	Junquero	R			
1	1	1	1	1	1	<i>Pitangus sulphuratus</i>	Benteveo	R			
	1	1	1	1	1	<i>Plegadis chihi</i>	Cuervillo de Cañada	R			
1	1	1	1	1	1	<i>Poliophtila dumicola</i>	Piojito Azulado	R			
1	1	1	1	1	1	<i>Polyborus plancus</i>	Carancho	R			
			1	1	1	<i>Progne chalybea</i>	Golondrina Azul Grande	RE			
				1		<i>Progne modesta</i>	Golondrina Negra	RE			
	1	1	1	1	1	<i>Progne tapera</i>	Golondrina Parda Grande	RE			
	1	1	1	1	1	<i>Pseudoleistes virescens</i>	Pecho Amarillo	R			
1		1	1	1	1	<i>Pyrocephalus rubinus</i>	Churrinche	RE			

2019	2020	2021	2022	2023	2024	Nombre científico	Nombre común	Residencia	UICN Regional	UICN Global	Prioritarias
1	1	1	1	1	1	<i>Rhea americana</i>	Ñandú	R			1
		1	1	1	1	<i>Rhynchotus rufescens</i>	Martineta	R			1
	1					<i>Rollandia rolland</i>	Macá Común	R			
			1	1	1	<i>Saltator aurantirostris</i>	Rey del Bosque Común	R			
			1	1	1	<i>Satrapa icterophrys</i>	Vinchero	R			
	1	1	1	1	1	<i>Sicalis flaveola</i>	Dorado	R			
1		1	1	1	1	<i>Sicalis luteola</i>	Misto	R			
	1	1	1	1	1	<i>Speotyto cunicularia</i>	Lechucita de Campo	R			
1				1	1	<i>Sporophila caerulescens</i>	Gargantillo	RE			
				1	1	<i>Sporophila cinnamomea</i>	Capuchino Corona Gris	RE	VU	VU	1
				1	1	<i>Stephanophorus diadematus</i>	Cardenal Azul	R			
				1	1	<i>Sturnella supercilialis</i>	Pecho Colorado	R			
			1	1	1	<i>Synallaxis frontalis</i>	Pijuf Frente Gris	R			
1			1	1	1	<i>Synallaxis spixi</i>	Pijuf Común	R			
			1	1	1	<i>Syndactyla rufosuperciliata</i>	Titirí	R			
1	1	1	1	1	1	<i>Syrigma sibilatrix</i>	Garza Amarilla	R			
1	1	1	1	1	1	<i>Tachycineta leucorrhoa</i>	Golondrina Cejas Blancas	RE			
	1	1	1	1	1	<i>Tangara preciosa</i>	Achará	R			
1		1	1	1	1	<i>Tapera naevia</i>	Crespín	RE			
	1		1			<i>Thamnophilus ruficapillus</i>	Batará Pardo	R			
				1	1	<i>Theristicus caudatus</i>	Bandurria Amarilla	R			
	1		1	1	1	<i>Thraupis bonariensis</i>	Naranjero	R			
			1	1	1	<i>Thraupis sayaca</i>	Celestón	R			
1	1	1	1	1	1	<i>Troglodytes aedon</i>	Ratonera	R			
	1	1	1	1	1	<i>Turdus amaurochalinus</i>	Sabiá	R			
2019	2020	2021	2022	2023	2024	Nombre científico	Nombre común	Residencia	UICN Regional	UICN Global	Prioritarias
1	1	1	1	1	1	<i>Turdus rufiventris</i>	Zorzal Común	R			
	1	1	1	1	1	<i>Tyrannus melancholicus</i>	Benteveo Real	RE			
1		1	1	1	1	<i>Tyrannus savana</i>	Tijereta	RE			
1	1	1	1	1	1	<i>Vanellus chilensis</i>	Tero	R			
1	1	1	1	1	1	<i>Xolmis cinereus</i>	Escarchero	R			
1	1	1	1	1	1	<i>Xolmis irupero</i>	Viudita Blanca Común	R			
1	1	1	1	1	1	<i>Zenaida auriculata</i>	Torcaza	R			
1	1	1	1	1	1	<i>Zonotrichia capensis</i>	Chingolo	R			
57	69	77	88	111	113						

Amphibians:

2019	2020	2021	2022	2023	2024	Nombre Científico	Nombre Común	Prioritarias	IUCN
1			1			<i>Dendropsophus sanborni</i>	Ranita Enana de Sanborn		LC
		1			1	<i>Elachistocleis bicolor</i>	Sapito oval		LC
1	1	1	1	1	1	<i>Hypsiboas pulchellus</i>	Rana Trepadora		LC
1	1	1		1	1	<i>Leptodactylus gracilis</i>	Rana Saltadora		LC
1		1	1	1		<i>Leptodactylus latinasus</i>	Rana Piadora		LC
1	1	1	1	1	1	<i>Leptodactylus latrans</i>	Rana Común	1	LC
		1	1	1		<i>Leptodactylus mystacinus</i>	Rana de Bigotes		LC
1	1				1	<i>Limnomedusa macroglossa</i>	Rana de las Piedras		LC
			1	1		<i>Melanophryniscus atroluteus</i>	Sapito Banderita Española		LC
1			1	1	1	<i>Odontophrynus americanus</i>	Escuerzo Chico		LC
					1	<i>Phyllomedusa iheringii</i>	Rana Monito		LC
				1		<i>Physalaemus biligonigerus</i>	Rana de Cuatro Ojos		LC
1	1	1	1	1	1	<i>Pseudis minuta</i>	Rana Boyadora		LC
	1	1	1	1	1	<i>Pseudopaludicola falcipes</i>	Macaquito		LC
	1					<i>Rhinella gr. granulosa</i>	Sapito de Jardín		LC
		1	1	1	1	<i>Scinax granulatus</i>	Rana Roncadora		LC
	1		1			<i>Scinax uruguayus</i>	Ranita Uruguay		LC
8	8	9	11	11	10				

APPENDIX 6: SDG EVIDENCE

INAUGURARÁN UN IMPORTANTE TRAMO DEL CORREDOR FORESTAL EN LA 8VA.

12/09/2022

Pasado mañana miércoles, será inaugurado un nuevo tramo del denominado corredor forestal, en la Octava Sección, jurisdicción del Municipio de Tupambaé, Laguna del Junco-Paso Minuano, lo que significará importantes beneficios para productores de esa zona y zonas vecinas.



Rural road inauguration in Sta. Hildara






Wood donations in Santa Clara community



Community development program: Shitake growing



Training in rural school

 FORMULARIO DE VISITA A VECINOS	
FECHA DE VISITA	24 / 6 / 24
PREDIO (EN ZONA DE INFLUENCIA)	La Piedad 1 y 2
NOMBRE Y APELLIDO DEL ENTREVISTADO	Miguel Arceaga
NOMBRE DEL ESTABLECIMIENTO/ INSTITUCIÓN/ COMERCIO	Restaurante N° 9 / Piedad
DIRECCIÓN / UBICACIÓN	Cerca zona de chacra
LOCALIDAD / DEPARTAMENTO	Tehuacan y Toluca
TELÉFONOS DE CONTACTO	091 646 931
DIRECCIÓN DE E-MAIL	
CONSIDERA UD. IMPORTANTE LA CONSERVACIÓN DE ÁREAS NATURALES Y/O ELEMENTOS DE VALOR PATRIMONIAL (VALORES AMBIENTALES-HISTÓRICOS O CULTURALES)?	
Si	
¿CONOCE UD. EN LOS PREDIOS DE LA EMPRESA EN LA ZONA, ALGUN LUGAR O ELEMENTO DE ESPECIAL INTERÉS PARA SU CONSERVACIÓN?	
Si	
¿QUERER UD. REALIZAR ALGUNA SUGERENCIA, OBSERVACIÓN, COMENTARIO, QUEJA O RECLAMO?	
No	
Información complementaria	
Se entregan datos de contacto AF	Si
Se entrega información de PGFS y CCB	Si
ENTREVISTA Realizada por (FIRMA Y ACLARACIÓN):	
 	
El procedimiento de Quejas y Reclamos, se encuentra disponible en la WEB de AF: www.af.com.uy Para realizar reclamos on line: https://www.bosquesdeluruguay.com/reclamos/	

Communication information provided to community evidence