



ArBolivia Project Report -July – December 2024

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Date of submission: 20/05/2025 V2.0 10/12/2025

Summary

Project overview

Reporting period

1st July 2024 – 31st December 2024

Geographical areas

Cochabamba Tropics (dpt Cochabamba),
Ichilo province (dpt Santa Cruz), Ituralde
province (dpt La Paz), J.Balivian
province (dpt Beni)

Technical specifications in use

Mixed Species Forest Plantations –
MSFP (revised version 2019)

Plan Vivo Certificates (PVCs) issued to date			418,899
Plan Vivo Certificates requested for issuance (2024 Q3&4 Vintage)			35,336
Total PVCs issued (including this report)			454,235
Project indicators	Historical (2011 -2024)	Added/ Issued this period (Jul 2024- Dec 2024)	Total
No. smallholder households with PES agreements	1135	68	1,203
No. community groups with PES agreements (where applicable)	314	13	327
Approximate number of households (or individuals) in these community groups	6,360	260	6,620
Area under management (ha) where PES agreements are in place	1,755.6	168.6	1,924.2
Total PES payments made to participants (USD)	3,496,081	383,885	3,879,966
Allocation to Plan Vivo buffer (tCO ₂)	49,798	4,757	54,555
Allocation to project withholdings (tCO ₂ e)	29,289	7,480	36,769
Saleable emissions reductions achieved (tCO ₂)	418,999	35,336	454,235
Unsold stock at time of Submission (PVCs)			
2024 Q3&4 Vintage	N/A	0	0
Total Unsold Stock (PVC)			
Plan Vivo Certificates (PVCs) issued to date			418,899¹
Plan Vivo Certificates requested for issuance (2024Q3&4 Vintage)			35,336
Total PVCs issued (including this report)			454,235

¹ Up to 2022, saleable emission where 241,696 PVCs to this an extra 19,060 PVCs have been used from the project withholdings to be in compliance with the funding partners. Totalling 260,756 PVC and in the 2023 report another 158,143 PVC have been added, resulting in 418,899 PVC. The number of PVC generated in this period have been 38,059PVC but 2,723 PVC of this have been used to return to the project withholdings. Therefor the new issuance is only 35,336 PVC. The remaining 16,337 PVC (of the 19,060 PVCs) will be returned to the project withholdings by new planting until the end of 2027.

Project updates

This document provides a report on the plantations established and maintained under the ArBolivia-Plan Vivo program, between 2008 and June 2024 and on new plantations brought under the Plan Vivo Standard between the 1st of July 2024 and 31st December 2024.

The plantations are located in the Pre-Andean or Pre-Amazon region in Bolivia (see map figure A.1), characterized by high precipitation, dominance of fragile alluvial soils.



Figure A.1. Location of ArBolivia project areas

The area is populated by communities of small farmers, most of Quechua and Aymara origin whom have moved to this region from the highlands in recent decades, due to increased poverty, and deterioration of the mining and agricultural economic bases that have traditionally supported the people of the Bolivian highlands. Besides there are communities of Tacanas, Mosevenes, Tsimanes and Yuracarés, native to this area.

The project area is distributed among 4 departments: La Paz, Beni, Cochabamba and Santa Cruz and 21 municipalities.

- La Paz: province Abel Ituralde, municipalities San Buenaventura and Ixiamas
- Beni: province José Ballivian: municipalities Rurrenabaque, Reyes and San Borja.
- Santa Cruz, provinces Ichilo and Sara, municipalities Yapacani, San Carlos, Buena Vista, Porongo, San Juan, Santa Rosa de Sara, Colpa Bélgica, Roboré, Warnes, El Torno y San Pedro,
- Cochabamba: Tropics of Cochabamba, municipalities Chimoré, Shinahuata, Pto Villarroel, Villa Tunari and Entre Ríos.

The communities in the municipalities of Colpa Belgica, Warnes, El Torno and San Pedro are new communities, just passing the boarder of current municipalities and social as well environmental conditions are similar. The planting in the municipality of Roboré is further away and is considered as a pilot. If this results well the project can be extended to this area.

A1 Key events

A.1.1 Extreme climate events

A.1.1.1 From extreme drought to high rainfall

The reporting period from July 2024 until 31st of December started with a very drought period. The El Niño phenomena continued in the first half of 2024, with a rainy season in the first half of 2024 which was not as humid as normally and also the rainy season in 2024 started late with again high temperatures in September (Senamhi, 2024), resulting in low soil humidity until October (NASA, 2025). In the second half of October, it started raining in the project areas with extreme rainfall in the months thereafter. This extended drought period caused a delay in the planting schedule of around a month. Planting started in November whereas in other years planting started already in October. The very dry period immediately followed by a period of extreme heavy rainfall caused an increase of the water flow in the rivers hampering the efficient distribution of planting material to some parts of the project areas. As a consequence, less new woodlots could be reported during the last quarter of 2024 than initially planned (168 has instead of 200 has). Postponing planting does not mean that the total area planned for planting during this rainy season will be less. Planting has been rescheduled, giving priority those areas, which can be reached easier and programming areas which are more isolated due to high water to a later moment.

A.1.1.2 Fire prevention and preparation for Fire Control

Following the negative experiences with fires in 2023, prevention activities has been developed for the team members as well for farmers.

Training of field staff and farmers and including the subject of wild fires on the agendas of the meetings with the forestry committees increased the awareness on prevention, it also increased awareness for the need of an early warning system for fire. Knowledge on the proper use of equipment and fire control strategies have been discussed during these meetings.

On a country level the fire season in 2024 was even worse than in 2023, with 10,771,550 hectares affected by fire against 6,382,265 in 2023 (Peña, 2024). The impact of the wild fires, on the project areas was relatively low compared to 2023. Not only the number of farmers suffering from fires has been less, also the intensity of the fires in case of occurrence was lower than in 2023. However still 34.8 has of woodlots have been damaged due to fire. Mainly younger woodlots have been affected, since canopies are not closed yet in these woodlots and more fuel (dry weeds) are present in these areas. This makes these areas more vulnerable for fire.

A.1.2 Presence in fairs

According The main proximate cause of deforestation in Bolivia is agroindustrial soybean cultivation and extensive cattle ranching. In the Amazon biome, the main ulterior driver of deforestation is related to the demand for commodities. On a smaller scale smallholders and indigenous communities are causing deforestation as part of the slash and burn practices.

To show that the alternative land uses as proposed by Sicirec Bolivia Ltda are feasible economic alternatives Sicirec Bolivia Ltda together with representatives of smallholders is participating in fairs on local, regional and national level.

In the second half of 2024 Sicirec Bolivia Ltda participated again in different fairs on national, regional and local level with the aim of:

- Creating awareness among a broader public on the need for forest conservation, restoration and agroforestry
- Sales on local, regional and national level of cacao, coffee, seeds, seedlings and wood products
- Generating interests in other farmers to participate in the tree planting activities

For the current participants the presence in fairs generate acknowledgements for their work and improves the sale of the products from woodlots and agroforestry systems, like coffee, cacao and a tea made of coffee husk tea (té Sultana).

Amongst other participation in fairs:

- Expocafé Santa Cruz in July 2024
- Coffee fair in Buena Vista (Santa Cruz) in September 2024
- ExpoYapacani (Santa Cruz) in August 2024
- Traditional fair Reyes (Beni) in August 2024

A.1.4. Training

A.1.4.1 Training the trainers

In August 2024 another 6 days training for all technical and part of administrative staff has taken place in Rurrenabaque. Objective of this training was to guide new employees, refresh criteria of the whole team and exchange experiences about the activities developed by Sicirec Bolivia Ltda. The program was focussed on improving and expand technical, theoretical and practical knowledge, with the aim of an improvement in the performance of the whole team and the professional development of each of the team members.

Among others the following topics have been discussed:

- Fire prevention and Fire Control
- Social values and participatory planning and implementation of activities
- Soil classification, theory and field practices
- Cacao and coffee (site requirements, planting design, management, pre harvesting, harvest and post-harvest activities, chain development and organic certification. (Theory and field exercises)
- Silvicultural management of woodlots (theory and field practices)
- Sustainable wood harvesting, thinnings (theory and field practices)
- Safety measures in plantations management and wood harvesting (theory and field practices)
- First aid practices and security



Figure A.2: Sicirec Bolivia team receiving training in fire control

In October 2024, 2 trainings for field staff have taken place on:

- In depth training on silvicultural management, with a focus on growth rates and thinning regimes
- Monitoring of tree growth in permanent sample plots for monitoring staff

A.1.4.2 Farmer trainings

All farmers received at least one site visit per year with training. Depending on the age of the woodlots/agroforestry systems farmers received on-site training in planting, weeding, pruning, thinning.

In the agroforestry plots they received training on the importance of shade trees but also on the management of shade trees (pruning)

13 Formal training events have been given with the participation of 625 farmers. Subjects of these training courses where:

- Fire prevention and the use of equipment for fire control
- Agroforestry:
 - management practices for coffee and cacao, such as pruning, importance of shade and nitrogen fixing trees species and use of organic fertilizers and biological pest control
 - Harvesting and post-harvest practices for coffee and cacao
 - Quality control and marketing

A.1.4.3 Meetings with forest committees

Regular meetings with the forestry committees have been taken place during 2024 with all committees. Apart from the 8 assemblies in the first half of 2024 in the reporting period another 9 assemblies have been taken place.



Figure A.3: Assembly Forest Committee "Ambiente Sano"

A2 Successes and challenges

A.2.1. New planting

During the reporting period, 168.6 has of new woodlots have been established, see figure A.1.

Species	Common name	Surface (ha)
Buchenavia oxycarpa	Verdolago negro de pepa	3.9
Calophyllum brasiliense	Palo maría	39.4
Centropogon tomentosum	Tejeyequé	50.4
Dipteryx odorata	Almendrillo	4.0
Stryphnodendron purpureum	Palo yugo	62.3
Tectona grandis	Teak	4.0
Terminalia amazonia	Verdolago negro de ala	4.5
Total		168.6

Figure: A.1. newly planted areas

77,910 coffee plants, 39,337 cocoa plants and 4,880 citrus plants have also been distributed and planted.

A.2.3. Wood production

6,518 board feet of sawn timber has been processed and sold to was processed for carpenters and has been partly was used for furniture, utilities, samples, and others. Preliminary data of the research of the wood lab of the university of Santa Cruz shows promising results for wood from plantations. UAGRM. No big differences are shown between wood from woodlots and wood from natural forests related to mechanical and physical properties, only the dimensions of the wood are different which makes that losses in processing the wood might be a bit higher. Based on this information further market opportunities will be explored in course of 2025, since the information obtained makes it easier to merchandise, having more and precise knowledge about wood quality and potential uses.

A.2.4. Forest fires

Training in fires prevention and fire control has led to an increased awareness among farmers and indigenous people for the need of protection. Where the country suffered from July to October from record high forest fires, in the project area the intensity of forest fires was less than in 2023. However also in the months September and October 2024 woodlots have been affected by fire.

A.2.4.1. Forest fires in 2024

As in 2023 the areas in Beni and La Paz are most vulnerable to wildfires. These fires are caused by slash and burn activities which are running out of control, but in a big extend fires are also caused by fire management in surrounding. As shown in A.2 and A.3 a surface of 34.3 ha has been damaged by fire.

Species	Common name	2020	2021	2022	2023	Total
<i>Calophyllum brasiliense</i>	Palo maría				6.1	6.1
<i>Centrolobium tomentosum</i>	Tejeyeque	1.0		1.0	3.4	5.4
<i>Stryphnodendron purpureum</i>	Palo yugo			1.4	14.8	16.2
<i>Tectona grandis</i>	Teak				5.4	5.4
<i>Terminalia amazonia</i>	Verdolago negro de ala		0.5		0.7	1.2
Total general		1.0	0.5	2.4	30.4	34.3

Table A.2. Surface of woodlots affected by wildfires in 2024 per species and age

Department	Surface (Ha)	Relative Surface
Beni	23.9	69.8%
Cochabamba	0.5	1.5%
La Paz	7.7	22.3%
Santa Cruz	2.2	6.4%
	34.3	100%

Table A.3. Surface of woodlots affected by wildfires in 2024 per department

A.2.5.1 Recovery of woodlots damaged by the 2024 forest fires

Important to mention that 17.7 hectares of this surface has been replanted are recovered already in December 2024 and 14,1 hectares is programmed for replanting in 2025/2026, the remaining 2,5 hectares belonging to three farmers who will only continue with the planted areas which have not been damaged by fire, but decided not to restore the parts they lost. The 2,5 hectares lost where areas planted with *Stryphnodendrum purpureum* in 2023 and the loss of PVU is 538,1 tCO₂e. Which will be restored by new area planting in the next report.

A.2.5.2 Recovery of woodlots damaged by the 2023 forest fires

By February 2024 onwards the focus went from direct support towards the recovery of woodlots and agroforestry plots which have suffered from the fires.

A study is started together with the University of Applied Sciences VanHallLarenstein from the Netherlands carried out to the best ways to recover the woodlots. This can be replanting (a process what has been started) or the management of regrowth of the trees.

The study is continued but a temporary strategy is already drafted and implemented, which has resulted in the recovery of 64.1 hectares (43%) of the total of 149 hectares damaged, as shown in table A.4,

- 22.1 ha have been recovered by itself, though extra maintenance and pruning has been done, since trees got a lot of epicormic resprouting
- 32.4 hectares of trees show basal sprouts which required a reduction to one sprout per tree
- 9,6 hectares was replanted completely, since trees weren't recovering, no sprouts appeared the woodlots have been completely replanted.



Provisions are taken for the replanting of 79.5 hectares in course of 2025, though based on monitoring of the woodlots it can be decided to invest more in the management of resprouts supporting the recovery of affected trees. Especially in elder stands of *Centrolobium tomentosum* and *Stryphnodendron purpureum* this can be an option.

Status	Species	Common name	Surface (ha/species)	Surface (ha/status)	Surf. % of total area damaged
Recovered	<i>Calophyllum Brasiliense</i>	Palo maría	1.5	22.1	15%
	<i>Centrolobium tomentosum</i>	Tejeyequé	1.0		
	<i>Stryphnodendron purpureum</i>	Palo yugo	1.0		
	<i>Tectona grandis</i>	Teak	18.6		
Management of sprouts	<i>Centrolobium tomentosum</i>	Tejeyequé	18.3	32.4	22%
	<i>Stryphnodendron purpureum</i>	Palo yugo	6.5		
	<i>Tectona grandis</i>	Teak	7.6		
Replanted in 2024	<i>Buchenavia oxycarpa</i>	Verdolago negro de pepa	0.2	9.6	6%
	<i>Calophyllum Brasiliense</i>	Palo maría	0.8		
	<i>Centrolobium tomentosum</i>	Tejeyequé	5.1		
	<i>Stryphnodendron purpureum</i>	Palo yugo	3.5		
Subtotal	Woodlots completely recovered		64.1	64,1	43%
Replanting in 2025	<i>Buchenavia oxycarpa</i>	Verdolago negro de pepa	0.5	79.5	53%
	<i>Calophyllum Brasiliense</i>	Palo maría	22.1		
	<i>Centrolobium tomentosum</i>	Tejeyequé	30.8		
	<i>Dipteryx odorata</i>	Almendrillo	2.7		
	<i>Stryphnodendron purpureum</i>	Palo yugo	15.5		
	<i>Tapirira guianensis</i>	Palo román	4.4		
	<i>Tectona grandis</i>	Teak	1.0		
	<i>Terminalia Amazonia</i>	Verdolago negro de ala	2.5		
Trees alive but affected, replanting later	<i>Calophyllum Brasiliense</i>	Palo maría	2.5	2.5	2%
Subtotal	In process of recovering		82.0	82,0	55%
Farmer demotivated; woodlot is considered as lost	<i>Calophyllum Brasiliense</i>	Palo maría	1.9	3.1	2%
	<i>Centrolobium tomentosum</i>	Tejeyequé	0.7		
	<i>Dipteryx odorata</i>	Almendrillo	0.3		
	<i>Swietenia macrophylla</i>	Mara	0.1		
	<i>Tapirira guianensis</i>	Palo román	0.1		
Subtotal	Unable to recover/loss		3.1	3.1	2%
				149.2	100%

Table A.4. Current Status of plantations affected by forest fires in 2023

Three hectares, have to be considered as loss. This surface is belonging to 2 different farmer families are not motivated to replant, and the carbon losses should be covered with the PVU from the buffer. Of the remaining 82 hectares it is not completely sure yet if farmers can be motivated to restore these woodlots since costs and efforts are high and there are only limited funds available for replanting activities. There for we will apply losses can be recovered from the PlanVivo buffer.

A full overview of affected areas and activities to restore these areas is shown in annex 3.

Part B: Project activities

B.1. Project activities generating Plan Vivo Certificates

Table B.1 below lists the technical specifications being used in the project, the area covered and the number of participants using them.

Table B.1: Project activity summary

Name of technical specification	Area (Ha)	No smallholder households	No Community Groups
<i>Mixed species Forest Plantation (previous reports)</i>	1,755,6	1,135	314
<i>Mixed species Forest plantation (reporting period)</i>	168.6	68	13
<i>Total</i>	1,924.2	1,203	327

As shown in table B2, 154 families have established new woodlots during the reporting period. 86 of these 154 families have been planting as well in previous years and now extended their woodlots or agroforestry system. 68 of the 154 families participated for the first time in the tree planting activities.

Part of these 68 “new” families have been recruited in the communities where other members of the community have been participating already but others are representing new communities. A total of 13 new communities have been included in the reporting period. The same conditions apply for all new farmers as for the existing PV-families.

B.2. Project activities in addition to those generating Plan Vivo Certificates

Since reforestation activities cannot be seen in isolation from other livelihood activities, project participation begins in all cases with the elaboration of an Integrated Land Use Plan. Integrated Land Use Planning ensures that tree planting does not adversely affect income or food security in the short, medium and long term.

In addition to this:

- Farmers receive advice on land use planning.
- Farmers receive advice on improved cropping practices.
- Agroforestry systems with cocoa, coffee or fruit orchards are established
- Farmers receive training and advice on improving crop production, harvesting techniques and post-harvesting activities.

Monitoring & evaluation together with onsite training is done during the site visits.

More specifically the project focusses on the increase of surface of agroforestry systems, with special emphasis on coffee, cacao and tonka beans. We believe a transition towards sustainable land use does not only depend on tree planting and establishing more surface of agroforestry systems but goes hand in hand with the development of the supply chain. The permanence of the planted areas under the Plan Vivo Standard is much more guaranteed if farmers can make a real transition towards sustainable land use, having a stable and better income. A focus on planting, maintenance, harvest,

pos-harvest activities result in the sale of coffee and cacao against a higher price than usual in Bolivia and is contributing significantly to the improvement of the livelihoods of participating farmers.

B.2.2. Agroforestry production

An additional 29.2 ha of coffee and 74.5 ha of cocoa have been planted within woodlots previously established under Plan Vivo, as well as 12.3 ha of fruit trees which have been planted with PlanVivo aiming on improvement of livelihood of the farmer families. Production of fruit is mainly sold by the smallholders on the local market, whereas coffee and cacao is sold through Sicirec Bolivia on the national and mainly international market.

Part C. Plan Vivo Certificate issuance

C.1. Contractual statement

The issuance of credits is based on signed agreements with the smallholders, which outline the responsibilities and rights of both the smallholders and Sicirec Bolivia Ltda.

C.2. Issuance request

During this reporting period, another 168.6 hectares have been brought under Plan Vivo. These hectares generate a total of 47,574 tCO₂e. The issuance request for new areas is specified in table C.1. below.

Tech. Spec. used	No of participants/ groups allocated	Total area allocated (ha)	Carbon Potential (tCO ₂ /ha)	Total ER's (tCO ₂)	% buffer	No. of PVCs allocated to PV buffer	No. of PVCs allocated to internal buffer	ER's (tCO ₂) from this period for retirement
TS Mixed forests	154	168.6	282.2*	47,574	10+10%	4,757.4	4,757.4	38,059
							2,723.0	-2,723
TOTAL	154	168.6	282.2	47,574	10%+10%	4,757.4	7,480.4	35,336

Table C.1.: Issuance request for Plan Vivo Certificates allocated to new participants and land

*This is an average across all species and all sites planted, specific data per species and sites is shown in annex 1

The total project withholdings are currently less than 10%. As mentioned in the previous report in this report 2,723 tons will be returned to the internal buffer and are therefore deducted from the issuance request.

Annual report	Yearly return to project internal buffer	Returned to the internal buffer	Still to be returned to the internal buffer	Relative return to project internal buffer (%)
2024-2	2,723	2,723		14.2
2025	5,446			28.6
2026	5,446			28.6
2027	5,445			28.6
Total	19,060		16,337	100.0

Table C.2. Delivery of 19,060 to complete project withholdings of 10%

C.3 Data to support issuance request

Table C3 shows the newly established plantations per municipality, farmer or indigenous organisation and forestry committee. A full overview of the new established areas can be found in Annex 1.

Table C.3: New established woodlots July2024-December 2024 per municipality

Department	Municipality	Surface (Ha)	Total GHG (tn CO2e)	PVU (tCO2e)
BENI	Reyes	1.0	292	233
	Rurrenabaque	21.4	5,974	4,779
	San Borja	47.9	13,481	10,785
COCHABAMBA	Chimoré	9.0	2,488	1,990
	Entre Ríos	1.1	332	266
	Puerto Villarroel	5.6	1,538	1,230
LA PAZ	Ixiamas	15.2	4,290	3,432
	San Buenaventura	26.4	7,530	6,024
SANTA CRUZ	Portachuelo	5.1	1,537	1,230
	Roboré	2.0	605	484
	Porongo	0.7	212	169
	San Carlos	2.2	665	532
	San Pedro	15.0	4,317	3,454
	Yapacaní	16.0	4,314	3,451
Total		168.6	47,574	38,059**

- Monitoring data for areas of land and participants, which support the request, can be found in Annex 1.
- ** This is the amount of PVU before the deduction as mentioned in c.2.
- *** due to rounding numbers are slight different from the sum of the numbers shown, for a full overview see annex 2

C.4 Allocation of issuance request

Table C.4. describes the issuance request and its current allocation to buyers

Table C.4: Allocation of issuance request

Funding partner	No. PVCs transacted	Registry ID (if available) or Project ID if destined for Unsold Stock	Tech spec(s) associated with issuance
<i>Trees for All</i>	35,336		<i>MSFP</i>
TOTAL			

Part D: Plan Vivo Certificates

D.1: Generating Plan Vivo Certificates

In keeping with ArBolivia’s philosophy of reciprocity, farmers are not subsequently subjected to the volatility of the voluntary carbon market and Sicirec Bolivia Ltda commits to funding all project activities, based on the actual costs of implementing and maintaining the woodlots.

The woodlots provide different environmental functions, like biodiversity and the capture of tCO₂eq. Since the start of the project a surface of 1,924.2 hectares has been planted, this surface is generating 545,565 tCO₂eq, so on an average 283.5 tons of CO₂e are generated per hectare. In compliance with existing laws and regulations in Bolivia, no payments are made related to the tCO₂eq generated by the woodlots. Instead, farmers are receiving on different moments direct payments per hectare on compliance of activities as agreed in the contract between Sicirec Bolivia Ltda and the farmers. In addition to direct payments, farmers receive in-kind support through the provision of tools and equipment for coffee and cocoa harvesting and processing, fruit trees and the seedlings by the project coordinator. In accordance with the provisions established in the PDD, if the revenues linked to the generation of Plan Vivo certificates cannot cover these costs, the project manager (SICIREC Bolivia Ltda) is obliged to cover the deficit. Table D.1. provides details of all the transfers of Plan Vivo Certificates to date.

Table D.1: Transfer of Plan Vivo Certificates

Vintage(s)	Contributor	No. of PVCs	Contribution per PVC (\$)*	Total contribution (US\$)*	Support to participating farmers per PVC in first year (\$)*	Support to participating farmers per PVC in first year (\$)*	% financial support received by participants
Previously received							
2011 – 2022	Various (see previous annual reports)	259,894	9.86*	2,562,329		1,806,721	70.5%
Transfers Januari 2023 – June 2024							
2023	Trees for All	120,000	11.00	1,320,000	10.62	1,274,980	97%
2024	Trees for All	38,143	14.60	556,888	10.86	414,380	74%
Transfers current report July- December 2024							
2024-2	Trees for All	35,336	14.60	515,906	10,86	383,885	74%
Total		453,373		4,955,123		3,879,966	78%

*Payments to farmer are based on a hectare based support, totalling resp 1,806,721, 1,274,980, 414,380 and 383,885 USD and related to maintenance payments and in-kind support to farmers. The financial support per PVC is the total amount divided by the number of PVC issued. The unit support per PVC is rounded to 2 decimals..

Important to mention that the support to the farmers was on an average 10.62 USD dollars per credit in 2023 and 10.86 in 2024. This is what has been paid until the end of this reporting period, but in the following years the support will continue and between the second and the fifth year after planting, farmer support ascends to a total of 14.59 USD per PVU.

Part E: Monitoring results

E1: Monitoring environmental functions

In the reporting period 168.6 hectares were established with 7 different tree species. In Table E.1, species distribution is shown together with the Average Net GHG Emission Reduction per species.

Table E.1: Species distribution of new planted areas

Species	Common name	Surface (has)	Total GHG-ER	Project with-holdings	Buffer PlanVivo	PVU Issuance request
Buchenavia oxycarpa	Verdolago negro de pepa	3.9	909	91	91	727
Calophyllum brasiliense	Palo maría	39.4	11,333	1,133	1,133	9,067
Centrolobium tomentosum	Tejeyeque	50.4	15,237	1,524	1,524	12,189
Dipteryx odorata	Almendrillo	4.0	1,111	111	111	889
Stryphnodendron purpureum	Palo yugo	62.3	16,739	1,674	1,674	13,391
Tectona grandis	Teca	4.0	991	99	99	793
Terminalia amazonia	Verdolago negro de ala	4.5	1,253	125	125	1,003
Total general		168.6	47,574	4,757	4,757	38,059

• Total might show a slight difference with the numbers in the annexes, due to rounding of decimals

10% of the emission reduction will be kept in the PV buffer. Another 10% will be retained by the project itself, resulting in an issuance request of 38,059 tCO₂e. However, 2,723 tCO₂ extra will be added to the buffer as agreed in the previous report and also mentioned in section C2, making the issuance request 35,336tCO₂e.

Total issuances of credits are shown in Table E.2.

Table E.2: Issuance over time

#	Tech. Spec. used	participants / groups allocated	Total area allocated (ha)	Average carbon Potential (tCO ₂ /ha)	Total ER's (tCO ₂)	Issuance	PV buffer contribution	Withheld by project
1	Historic (see AR June 2024)	1,135	1,755.6	283.7	497,991	418,899	49,798	29,289
2	Jun 2024-Dec 2024 recruitment	68(154 ¹)	168.6	282.2	47,574	35,336 ²	4,757	(4,757 + 2,723) = 7,480
	TOTAL	1,203	1,924.2	283.5	545,565	454,235	54,555	36,769
	Percentage split					83.3%	10%	6,7%

1. During this period 154 farmers established new woodlots, of which 86 participated already tree planting in the previous reporting period and now extended their woodlots, 68 families have been planting for the first time

2 During this period 38,059PVC have been generated but 2,723 PVC have been returned to project withholdings, which makes the amount of available new PVCs 35,336

- The total ER from the new recruited areas is 47,574 tCO₂e, recruitment of 80% makes 38,059tCO₂e, but 2,723 are deducted from this and are returned to the project withholdings as mentioned in in table in C.2
- PV-buffer increased to 54,555 tCO₂, this is 10% of the total ERR and Arbolivia's.
- The voluntary project withholdings increased to 36,769 tCO₂e.
- Total consolidated area is 1,924.2 hectares
- The column of average carbon potential is the overall number of all carbon potential calculations

E2: Maintaining commitments

- As in previous years farmers received several visits before and after planting and during the maintenance of the trees. All farmers receive instructions on how to plant and farmers also receive specific recommendations based on their specific site conditions, site-preparation (in case of establishment) and the quality of the plantation. Information on this is noted on field forms and stored in the Decision Support System for each of the farmers.
- During the first two years, 6 evaluation visits of the plantations are foreseen. After that, the number of visits are reduced, and after 5 years farmers receive at least one time a year, this might be a bit more on request of the forestry committee.
- The visits have been carried out according to the following scheme:

Moment	Number of evaluations	Average number of additional visits, including the informal visits
pre-establishment	2	1
During establishment	2	2
Year 1	4	3
Year 2	3	3
Year 3	1	1
Year 4	1	1
Year 5 onwards	1	1

1. During the delivery of seedlings, a number of recommendations are made. Compliance with these recommendations is checked 1 to 3 weeks afterwards. Although the coordinates are initially measured by GPS at the planning stage, the area finally planted is also re-measured by the fieldworkers after planting, giving the exact coordinates (UTM WGS84) and surface area of each sector. Once introduced into the database, a unique sector code is automatically generated by the system to avoid any possibility of duplication of data and/or double counting. This data can be found in Annex 1 and 2. If any corrective work is required, the field technician checks that this work has been concluded satisfactorily and then is authorized to proceed with the payment due to the farmer, which is based on surface area as measured and recorded.

2. In the first year after planting, regular visits are carried out with the purpose of on-site training and evaluations. If evaluations show that the woodlots are established well, payments are made to the farmers.

For all areas: All the recommendations on the themes shown below were subsequently implemented, albeit not always within the suggested time frame.

- **Pest control:** Some pests, mainly ants, might attack the plantations and there is a need to apply biological pesticides. These products were either provided by ArBolivia or training was given on how to produce biological pesticides.
- **Cover crop:** Due to soil conditions, farmers are advised to plant leguminous cover crops, in which case appropriate seed is provided by ArBolivia.
- **Weeding:** This is necessary in order to avoid excessive competition between weeds and trees. In year 1, 3 to 4 times, in year 2 weeding is done 2 to 3 times, in year 3, 2 times and for the next years, once a year. Depending on the growth of the weeds, this could be adjusted
- **Replanting:** This is recommended in all cases whenever mortality exceeds 20%. ArBolivia provides the plants and the farmer carries out the planting. During the reporting period a relatively big surface planted between November 2023 and May 2024 needed replanting due the relative drought during the rainy season and the extensive drought in the months thereafter.
- **Pruning required:** Branches and shoots were required to be removed to encourage desirable plant growth. The type of pruning depends on age: For the younger plantations, this means low pruning or so-called “shape pruning” is recommended; for the plantations up to 4 years, medium pruning is recommended; and for higher trees, a high pruning is recommended, generally with the purpose of obtaining at least 6 meters of branch-free stems.
- **Protection against cattle:** In cases where no fencing or insufficient fencing was in place before tree establishment, or where the land use has changed (for example where one of the neighbours has decided to begin raising cattle), new fencing is necessary.
- **Fire control measures:** Wherever an elevated risk of forest fire has been identified, extra measures have been taken such as incorporating firebreaks, clearing the area of undergrowth and establishing cover crops in the younger woodlots.
- **Thinning required:** With the aim of optimizing tree growth and biomass increment, and obtaining desirable and marketable diameters of stems, different thinning’s will take place during the rotation of a plantation. The timing and intensity of thinnings are based on measurements of: tree height, diameter at breast height (dbh), competition between trees and crown cover. A field worker of ArBolivia makes yearly assessments; if a thinning is necessary, a plan will be made together with the farmer, which details the period in which the thinning will take place, who will carry out this work and to whom products can be sold. Trees to be thinned will be marked by ArBolivia’s field staff. Thinnings are carried out by a specialized team from ArBolivia with the participation of the farmer. Before and during this operation, the farmer receives on-site training in silviculture, low impact harvesting techniques and safety measures of the operations.

Part F: Impacts

F1: Evidence of outcomes

In 2023 a study was carried out, by a thesis student from the University of Applied Sciences Van Hall Larenstein from the Netherland on biodiversity. Finding showed the positive impact of the woodlots on macro-fauna, flora diversity and even on mammal and bird species compared to non-forested land. Also, a positive impact was found for especially the *Centrolobium tomentosum* on organic matter in soil.

A more detailed study was conducted by another BSc student who started in October 2024. Though this study will be finished by June 2025 preliminary results show already a substantially higher number of macrofauna and worms in planted sites compared to sites without tree planting. <https://hbo-kennisbank.nl/details/samhao:oai:www.greeni.nl:VBS:2:151503>

In September certification against the Global Biodiversity Standard³ was awarded to two ArBolivia sites (<https://www.biodiversitystandard.org/registry/>) the site of Nicolas Subia Contreres in the community Poza Azul (municipality Buena Vista) and the site of Pedro Victor Galindo Vera in the community Mataracu (municipality San Carlos). These sites are very representative for the whole ArBolivia project and demonstrates clearly that the the biodiversity This demonstrates that the efforts of Sicirec Bolivia ltda with the ArBolivia project supports to a high level the eight criteria established by The Global Biodiversity Standard:

1. Select appropriate sites to enhance native biodiversity.
2. Enhance protection of existing habitats and biodiversity.
3. Protect, restore and manage biodiversity in consultation and partnership with local communities and other stakeholders.
4. Aim to maximise biodiversity recovery through ecosystem restoration.
5. Avoid and reduce invasive or potentially invasive species.
6. Prioritise the use of native, threatened and rare species.
7. Promote biodiversity and adaptive capacity.
8. Implement robust monitoring, evaluation, and adaptive

The full report and registry for these sites can be found on: www.biodiversitystandard.org/registry/

³ <https://www.biodiversitystandard.org/2025/03/13/march-2025/>

First TGBS Certified Sites

We are delighted to announce that The Global Biodiversity Standard has awarded its first certifications to outstanding restoration projects worldwide:

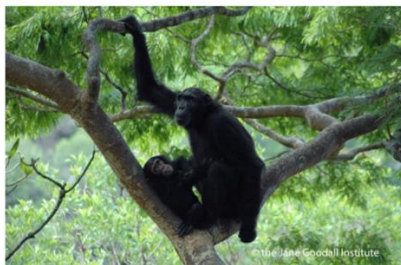


Photo Credit: Jane Goodall Institute

Jane Goodall Institute Uganda & Ecosia – **Advanced Certification** was awarded to the Kasenene and Nyantonzi sites, key areas within the initiative to restore the chimpanzee corridor between Budongo and Bugoma forest reserves in Uganda.

SICIREC & Ecosia – **Certification** was awarded to the Nicola Subia and Pedro Galindo sites, integral to the ArBolivia agroforestry project in Bolivia, which promotes sustainable land management and biodiversity recovery



Drone image in Bolivia. Photo taken by José Mamani (Huarango Nature).

Figure F1. Screenshot of TGBS website

Part G: Payments

G1: Summary of payments by year

- In contrast to a market-based approach, project guarantees to make staged payments to the farmers for the establishment and maintenance of plantations, as well as in-kind benefits, for example in the form bush cutters, tools, equipment, agroforestry plants and seed for cover crops. These payments are made periodically according to the fulfilment of specific monitoring targets rather than upon the sale and/or transfer of “carbon credits.
- In accordance with the provisions established in the PDD, even if the revenues from its sponsors for the completion of activities, are not sufficient to cover these payment commitments, the project manager (SICIREC Bolivia Ltda) is obliged to cover the deficit.
- Table G.1 show the payments made to farmers in the period 1st July 2024 until de 31st December 2024 for the new established woodlots. Cash payments amounting to the equivalent of 15,644 USD has been made to the farmers for establishment and another 8,623 USD was paid for maintenance of these plantations to the farmers.

Table G.1: Direct performance payments to farmers between 1st July 2024 and 31st of December 2024, new plantations

No Verif	Moment of Payment	Number of farmers	Surface (ha)	Total Amount (USD)*
V-01	Establishment	153	168.6	15,644
V-02	Maintenance 1 (after 3 months)	68	78,5	4,773

V-03	Maintenance 2 (after > 6 months)	56	63,3	3,850
				24,267

Payments of 65,663 USD have been made, during this reporting period, to farmers for the maintenance of previous established woodlots. Payments to the farmers with woodlots established during the previous years have been 759,130 USD. This means total payments amounts to 849,060 USD as shown in table G-2

Paymetts	Total Amount (USD)*
Accumulated payments previous reports	759,130
Maintenance payments this reporting period for previous established woodlots	65,663
Maintenance payments for new established woodlots	8,623
Establishment payments this period	15,644
	849,060

table G.2, Accumulated Payments to farmers until December 31, 2024

Part H: Ongoing participation

H1: Recruitment

77,910 coffee plants, 39,337 cocoa plants and 4,880 citrus plants have also been distributed and planted, resulting in agroforestry plots of 29.2 hectares with coffee and 74.5 hectares of cocoa, as well as 12.3 hectares of fruit trees

H2: Community participation

Meetings have been held with the board members of FESPAI (Northern La Paz), FEPAY. FECAR (Beni), FECCT, FCIC, FUCU (Cochabamba Tropics), FSCIPAY (Yapacani) and the farmer organization CSUTB (Santa Cruz). In the areas, which belong to an indigenous territory, meetings have been held with the Council of Indigenous Tacana People (CIPTA) and the Regional Council Tsimane Mosekene (CRTM). The purpose of these meetings has been to inform these organizations about the ongoing project activities with the communities and farmers belonging to them.

“Forestry Committees” constitute the primary formal mechanism for the engagement of smallholders in discussions about the project goals and implementation. These committees are established not only in co-ordination with but also within the pre-existing grassroots political mechanism, which defines the smallholder communities as their “syndicato” (union). The internal regulation document explicitly describes the role of the committees, as well as their constituent parts and operations. Mechanisms for the resolution of conflicts between the project management and smallholders are also described therein.

According to the internal rules of the committee’s during this report period 12 assemblies have been organized in the first half of 2024 with the forestry committees in which ArBolivia has been presenting the financial and a technical report to each of the forestry committees.

Part I: Project operating costs

Book year of Sicirec Bolivia is from July first to June 30th, therefor the data shown in table I-1 are preliminary data. A complete overview will be given in the next reporting period until the 30th of June 2025. Important to mention that some costs are relatively high e.g. nursery costs, whereas cost for land preparation and establishment costs are relatively low. This is due to seasonal influences whereas activities for seedling production are very much concentrated in the months and planting is concentrated in the months December until the end of May.

Table E.1: Project expenditures during reporting period in USD

Expense	Narrative	Total (USD)	In kind to participants (USD)
Social Engagement & site selection	Explanation about the project to new farmers. meetings with forestry committees, conflict resolution. Registration of woodlots	20,734	
Trees to nursery gate	Seed collection. seedling production in nursery	293,950	293,950
Land preparation, establishment: Transport + Training	Sites species matching. plantation design and capacity building for farmers	35,063	35,063
Land preparation, establishment	This are direct payments made to farmers upon establishment of the woodlots	15,644	15,644
Plantation maintenance: Training, for all PV farmers	Training of all PV farmers in plantation management. weeding. replanting. pruning. thinning	205,842	205,842
Equipment for farmers	Brush cutters, pruning tools	22,714	22,714
Plantation maintenance	Direct payments to farmers once woodlot is well maintained	74,286	74,286
Monitoring	Quality control of plantations. measurements in permanent sample plots and research	27,239	
Carbon costs	Payments to PV + certification costs	18,734	
Management + Technical advice	Management, chain development, technical advice	22,225	
Overhead	Includes financial audits. office rents. depreciation of vehicles	43,978	
Total		780.409	647.499

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Annexes