

ArBolivia Project Report -July-December 2021

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Summary

Project overview

Reporting period	1 st July 2021 – 31 st December 2021
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)

Project indicators	Historical (2011 -2021)	Added/ Issued this period (2021 Jul-Dec)	Total
No. smallholder households with PES agreements	390	65	455
No. community groups with PES agreements (where applicable)	138	20	158
Approximate number of households (or individuals) in these community groups	2820	400	3220
Area under management (ha) where PES agreements are in place	600	112.4	712.4
Total PES payments made to participants (USD)	254,995	56,838	311,833
Allocation to Plan Vivo buffer (tCO ₂)	17,093	3,263	20,356
Allocation to project withholdings (tCO ₂ e)	15,644	3,263	18,906
Saleable emissions reductions achieved (tCO ₂)	138,195	26,105	164,300
Unsold stock at time of Submission (PVCs)			
2021 Vintage	N/A	26,105	26,105
Total Unsold Stock (PVC)			
Plan Vivo Certificates (PVCs) issued to date			138,195
Plan Vivo Certificates requested for issuance (2021-2 Vintage)			26,105
Total PVCs issued (including this report)			164,300

Part A: Project updates

A1 Key events

- This document provides a report on the plantations established and maintained under the ArBolivia-Plan Vivo program, between 2008 and 2020 and on new plantations brought under the Plan Vivo Standard between the 1st of July and 31st of December 2021.
- The plantations are located in the departments La Paz, Beni, Cochabamba and Santa Cruz:
 - La Paz: province Abel Ituralde, municipalities San Buenaventura and Ixiamas
 - Beni: province José Ballivian: municipalities Rurrenabaque and San Borja, Reyes
 - Santa Cruz, Ichilo province municipalities Yapacani, San Carlos, Buena Vista, Porongo, San Juan
 - Cochabamba: Tropics of Cochabamba, municipalities Chimoré, Shinahuata, Pto Villarreal.

Figure 1.1: Location of the province of José Ballivian in the dpt. of Beni and the province A. Ituralde in the dpt. of La Paz

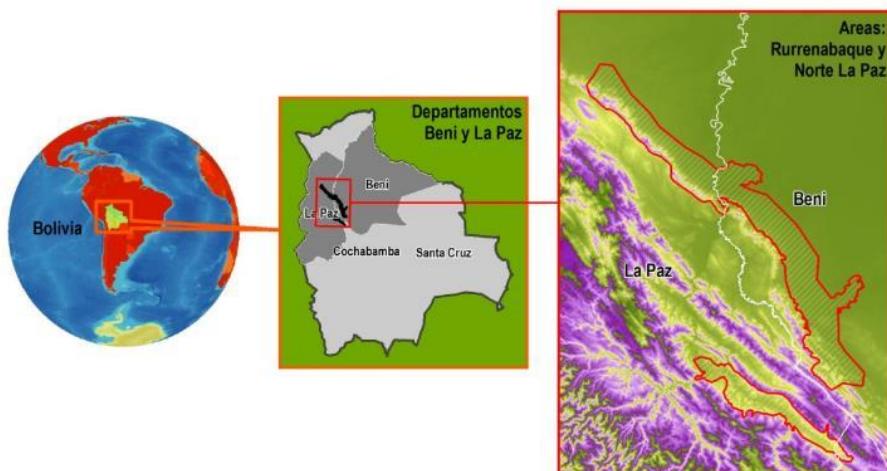


Figure 1.2: Location of the Cochabamba Tropics area, dpt. Cochabamba

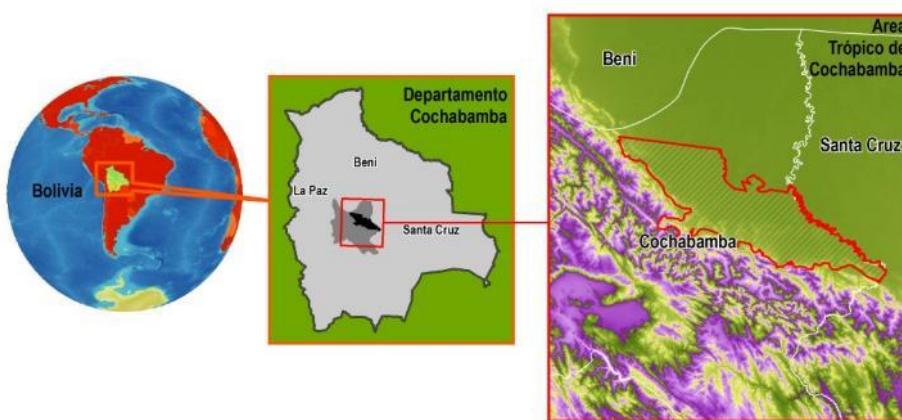
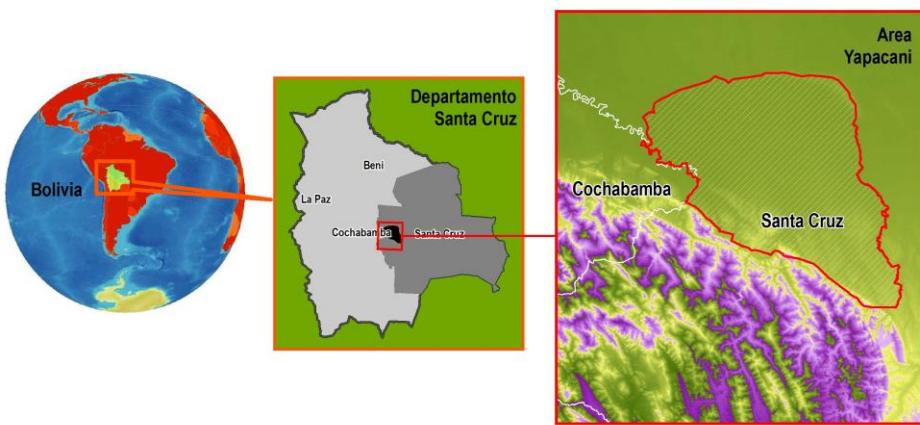


Figure 1.3: Location of the province Ichilo, Santa Cruz



A2 Successes and challenges

During the second half of 2021, 112.4 ha of new woodlots have been established. 75,850 coffee plants and 6,898 cacao plants and 2,410 citrus plants also been distributed and planted, partly under existing trees and partly together with timber trees.

- As in most countries, Bolivia is still suffering from the impacts of COVID-19, but the team has nevertheless been able to continue planting and maintenance activities.
- 3 new nurseries have been set up together with smallholders and 2 private nurseries have been contracted in these nurseries 'seedlings are produced under the supervision of Sicirec Bolivia ltda.
- Tree planting started late this year, in the second week of November due to dry weather conditions in October.
- The activities of the field staff together with the forestry committees on fire prevention did pay off. Though in nearby areas there have been fires, the areas planted under the PlanVivo scheme haven't suffered from these fires.
- Again, due to COVID restrictions in the second half of 2021, no meetings with the forestry committees have taken place, but meetings with the board members of the committees have taken place.
- From June 2021 until April 2022, a thesis student from the forestry career of the University San Simon in Cochabamba is working on a thesis on growth, biodiversity and environmental monitoring of woodlots and coffee plots.
- Two students from the University of Applied Sciences Van Hall-Larenstein from the The Netherlands did their fieldwork for a thesis in growth, development and biodiversity in woodlots and agroforestry systems. It is expected that, they will finish their thesis by June 2022.
- During 2022, 4 more students, from the University of Applied Sciences Van Hall-Larenstein, will be expected to do an internship on different themes: seedling production, growth and development, monitoring of biodiversity and chain development of wood, and agroforestry products.
- Coffee produced by ArBolivia-farmers has been tested at a national tournament and reached relative high cupping scores as specialty coffee without applying special selection criteria and harvest and post-harvest treatments. This was reason to send the samples to international

coffee roasters. The coffee has been received well, which opens possibilities to sell it on the international market.

To be able to open the international market for “ArBolivia-coffee” Sicirec Bolivia started with the identification of already productive coffee plots and the development of the production chain for this coffee. Preparations for the new harvesting season (March-July) have been made for activities as training, technical assistance and marketing to be implemented from February onwards.

- Apart from the already existing portable saw mill, the harvesting and processing unit of Sicirec Bolivia ltda. is equipped now with drying kilns and more chain saws. Processing of wood from second thinnings has been done on a pilot base, and the dried wood has been successfully promoted among carpenters in Santa Cruz and Cochabamba.
- Monitoring of regeneration of trees in the woodlots has led to very interesting results, especially in those woodlots where thinning has taken place. Monitoring results, especially of the species: *Centrolobium tomentosum*, *Calophyllum brasiliense*, and *Tapiri guianensis* show a high potential of regeneration by seeds as well from new sprouts from the stems, which means that the aim of focusing on polycyclic harvesting system based on coppicing and management of natural seedlings can be sustained by field data and management will not be focused on a clear cut but on a permanent forest cover. The next version of the *Technical Specifications* will be adapted in this sense.
- The boards of the forestry committees expressed on several opportunities their concern about the level of payments made to the farmers for the maintenance of the plantations, due to inflation the amount of 350Bs per hectare per year does not sufficiently cover their costs. On the other hand due to loan cost inflation also the costs for technical assistance are increasing, so there is not much room for increasing this amount. In the long term this might cause problems especially if cost levels in Bolivia are expected to raise more in future. To solve this issue, Sicirec Bolivia ltda made a proposal to the farmers to create a fund from which collectively equipment can be bought. This equipment can be provided to farmers as an advanced payment, farmer pay this back with the value of their maintenance labour in the woodlots or in the agroforestry systems. E.g instead of maintenance payments farmers receive brush-cutters. Sicirec-Bolivia ltda is negotiating a loan now to create this fund and to start with a pilot in the first quarter of 2022.

A3 Project developments

- The verification report, which describes the findings of the 2018 verification (see the 2018 annual report for more information) was finalised in this reporting period in May 2019. It listed 2 minor forward action requests (FARs) due by 2023. Due to the COVID restrictions, only little progress has been made on the corrective actions. In Table 2, the outstanding corrective actions are listed and the progress made against these during the current reporting period.

Table 2: Progress against corrective actions

Document	Corrective action	Activity against this
Verification Report (1 April 2019)	<i>CUC-FAR-01(Minor) deadline for closure 23rd of October 2023 – waste management procedures and policies, as well training and education for project members in order to reduce waste production and how to deal with those</i>	<ul style="list-style-type: none"> • The search for alternative and more environmentally friendly seedling production will be continued. We will focus on the pots which can be re-used instead of disposable pots and as far we still use disposable pots on the implementation of an improved protocol on waste reduction.

Document	Corrective action	Activity against this
	<p><i>considered toxic or hazardous for people and environment. The region where the project is established does not count with licensed companies to manage hazardous waste properly, being a challenge for the Project Developer to correctly treat and dispose this kind of material.</i></p>	<ul style="list-style-type: none"> Training of project staff on waste management is programmed for July 2022, before this an expert will be hired to give advice on the way this can be implemented, considering that now licensed companies are available to deal with e.g. oil (used by moto-cycles and chain saws)
<p><i>Verification Report (1 April 2019)</i></p>	<p><i>CUC-FAR-02 (Minor) deadline for closure 23rd of October 2023- Project developer did not review the documents such as “manuales de campos socioeconómico y biodiversidad”, “Sistema de monitoreo y evaluación del proyecto ArBolivia” and did not update information that is being implemented at field level, such as like calliper use for measurements, buffer zones protocol, health and safety at thinning, waste management and species growth model for example.</i></p>	<ul style="list-style-type: none"> Field work for Impact monitoring has been done by 1 national and 2 international students, on top of that they also reviewed the current monitoring methodologies on: <ul style="list-style-type: none"> Use of instruments like calliper etc to improve the monitoring protocols Further extension and improvement of methodology on biodiversity monitoring Species growth models Based on the results (expected between April and June) protocols will be improved. In the first half of 2022 two other students will review safety protocols for thinnings and harvesting in the woodlots

A4 Future Developments

- The ambition for 2022 is to further expand pre-financing and loan facilities for the ongoing tree planting activities in combination with annual crops, coffee and cacao. Basically for the coffee chain there are advanced negotiations for more loan facilities.
- Apart from selling coffee on the national market Sicrec Bolivia Ltda has made arrangements for selling a first containerload with coffee to Europa, by July'22. This will benefit highly to the improvement of livelihoods of the participating farmers.
- After the successful promotion of wood from the pilot run in 2021 Sicrec Bolivia Ltda, an operational plan will be prepared and implemented for the plantations which require second thinnings. Wood products from this second thinning will improve the farmers' revenues.
- According to our strategic plan to meet farmers' demand and optimise our current capacity, a projection has been made for the extension of the program with 1,750 hectares of woodlots and 500 hectares of agroforestry systems over the next 5 years. On average this means 450 hectares yearly. For 2022, 2023 contracts are now in place with various partners to reach this goal. Further extension is possible, but this means an upscaling of current capacity, human resources and logistics. Upscaling the capacity is conditional upon a long term funding commitment of at least 3 years.

Part B: Project activities

B1 Project activities generating Plan Vivo Certificates

- Table 3 below lists the technical specifications being used in the project, the area covered and the number of participants using them.

Table 3: Project activity summary

Name of technical specification	Area (Ha)	No smallholder households	No Community Groups
Mixed species Forest Plantation	712.4	455	158

- In the second half of 2021, 86 families in 52 communities established new woodlots, 65 of these smallholder families joined the programme for the first time.
- The same conditions apply for all new farmers as for the existing PV-families.

B2 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, mid and long term.
- In addition to this:
 - Farmers receive advice on land use planning.
 - Farmers receive advice on improved cropping practices.
 - On an area equal to 20% of the eligible planting area, agroforestry systems with cacao, coffee or fruit orchards are established.
- Monitoring & evaluation together with onsite training is done during the site visits.

Part C: Plan Vivo Certificate issuance submission

C1 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.

C2 Issuance request

- During the second half of 2021, another 112.4 hectares have been brought under Plan Vivo. These hectares generate a total of 32,632 tCO2e. In Table 5, the issuance request for new areas is specified.

Table 5: Issuance request for Plan Vivo Certificates allocated to new participants and land

Tech. Spec. used	No of participant s/ groups allocated	Total area allocated (ha)	Carbon Potential (tCO ₂ /ha)	Total ER's (tCO ₂)	% buffer	No. of PVCs allocated to PV	No. of PVCs allocated to internal buffer	Saleable ER's (tCO ₂) from this period
TS Mixed forests	86	112.4	290.3	32,632	10+10%	3,263	3,263	26,105
TOTAL	86	112.4	290.3	32,632	20%	3,263	3,263	26,105

C3 Allocation of issuance request

- Table 6 describes the issuance request and its current allocation to buyers

Table 6: Allocation of issuance request

Buyer name/ Unsold Stock	No. PVCs transacted	Registry ID (if available) or Project ID if destined for Unsold Stock	Tech spec(s) associated with issuance
Trees for All	10,000		MSFP
Zero Mission	16,105		MSFP
TOTAL	26,105		

C4 Data to support issuance request

Table 7 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 7: New established woodlots July-December 2021

Department	Municipality	Organization Farmers / Indigenous	Committee	# Comm.	# Farmers	Surface (Ha)
Beni	Rurrenabaque	FECAR	12 de Junio	1	1	2.0
Beni	Rurrenabaque	CIPTA	Almendrillo	2	2	2.8
Beni	Rurrenabaque	CRTM	Tsimane	2	10	8.1
La Paz	San Buenaventura	FESPAI	Gabu	4	6	8.0
La Paz	San Buenaventura	FESPAI	Madidi	1	2	3.5
La Paz	San Buenaventura	CIPTA	Mara	2	5	6.5
Cochabamba	Chimore	FCICH	Tropico	4	8	12.7
Cochabamba	Entre Ríos		Tropico	1	2	1.6
Cochabamba	Puerto Villaruel		Tropico	2	2	2.0
Santa Cruz	Buena Vista	CSUTB	Distrito 3 Amboro	5	8	11.2
Santa Cruz	Buena Vista	CSUTB	Villa Amboró	1	2	2.8
Santa Cruz	Porongo		No committee	2	2	6.5
Santa Cruz	San Carlos		Tarara	4	6	6.5
Santa Cruz	San Juan		No committee	4	6	13.1
Santa Cruz	Yapacani	FSCIPAY	No committee	10	16	18.2
Santa Cruz	Yapacani	FSCIPAY	Amboro Ichilo	2	2	1.2
Santa Cruz	Yapacani	FSCIPAY	Amboro mutun	3	4	3.4
Santa Cruz	Yapacani	FSCIPAY	Palo maría	1	1	1.0
Santa Cruz	Yapacani	FSCIPAY	Zona Sur	1	1	1.5
Total				52	86	112.4

- Monitoring data for areas of land and participants, which support the request, can be found in Annex 1.

Part D: Sales of Plan Vivo Certificates

D1: Sales of Plan Vivo Certificates

- The implementing agency Sicirec Bolivia Ltda has transferred all Plan Vivo credits to the UK-based society “Cochabamba Project Ltd”. In keeping with ArBolivia’s philosophy of reciprocity, farmers are not subsequently subjected to the volatility of the voluntary carbon market and The Cochabamba Project Ltd commits to funding all project activities, based on the actual costs of implementing and maintaining the woodlots.
- On average, 284.9 (230.35 without the buffer) tonnes of CO2e are generated per hectare. In addition to direct payments, farmers receive in-kind support through the provision of barbed wire, fruit trees and the seedlings by the project coordinator. In order to adhere to Bolivian regulations, revenues from environmental functions must not be subject to market prices but must be fixed amounts based on actual costs. In accordance with the provisions established in the PDD, if the revenues for carbon credits cannot cover these costs, the project manager (SICIREC Bolivia Ltda) is obliged to cover the deficit.
- Table 8 provides details of all the transfers of Plan Vivo Certificates to date.

Table 8: Transfer of Plan Vivo Certificates

Vintage(s)	Supporter	No. of PVCs	Price per PVC (\$)*	Total sale amount (\$)*	Price to participants (\$)*	% Sale price received by participants
Previously received						
2011 – 2020	Various (see previous annual reports)	114,686				77%
Transfers 2021						
2021a	<i>Tree Nation</i>	1074				77%
	<i>Zero Mission</i>	21,573				77%
2021b	<i>Zero Mission</i>	16,105				77%
	Trees for All Foundation	10,000				76%
Subtotal						77%
Total		163,438				

*Pricing reported for internal monitoring purposes only. Pricing information will be removed from the final published document.

Part E: Monitoring results

E1: Ecosystem services monitoring

- During the last six months of 2021, 112.4 hectares were established. In Table 9, species distribution is shown together with the Average Net GHG Emission Reduction per species.

Table 9: Species distribution of new planted areas

Scientific name	Common name	Surface (Ha)	Net GHG ER (tCO2e)
<i>Calophyllum brasiliense</i>	Palo maría	38.4	11,034
<i>Centrolobium tomentosum</i>	Tejeyeque	49.2	14,839
<i>Dipteryx odorata</i>	Almendrillo	8.0	2,216
<i>Stryphnodendron purpureum</i>	Palo yugo	14.3	3,842
<i>Tapirira guianensis</i>	Palo román	1.0	282
<i>Terminalia amazonia</i>	Verdolago negro de ala	1.5	418
Total		112.4	32,632

- 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 26,105 tCO2e. This issuance request is supported by the detailed monitoring results shown in Annex 1.

Total issuances of credits is shown in Table 11.

Table 11: Issuance over time

#	Tech. Spec. used	No of 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 2021a)	390	600,0	284.9	170,932	138,195	17,093	15,644
2	2021 Jul-Dec recruitment	65	112.4	290.3	32,632	26,105	3,263	3,263
TOTAL		455	712.4		203,564	164,300	20,356	18,907
Percentage split						80.7%	10%	9.3%

- PV-buffer increased to 20,356 tCO₂, i.e. 10% of the total ERR and Arbolivia's voluntary reserve has now increased to 9.3 %.
- Total consolidated area is 712.4 hectares
- Monitoring results for all participants and respective areas are shown in Annex 2.

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, this is reduced to one per year.

- The visits have been carried out according to the following scheme:
 1. During the delivery of seedlings, a number of recommendations are made. Compliance with these recommendations was checked 1 to 3 weeks afterwards. Although, during site selection, the coordinates were measured by GPS at the planning stage, the area finally planted has been 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. In the 5th column (sector code) this code is shown. 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.
 3. 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.

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.
- **Replanting:** This is recommended in all cases whenever mortality exceeds 20%. ArBolivia provides the plants and the farmer carries out the planting.
- **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. ArBolivia provides a quantity of barbed wire, whilst the farmer provides the poles and any additional barbed wire as required.
- **Fertilization:** Organic fertilizers are used as required.
- **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.
- **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 thinning's 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 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.

- **No recommendation:** No specific recommendations were necessary.
- For older plantations, most emphasis is made on pruning and thinning.

E3: Socioeconomic monitoring

- The project is registered under the 2008 version of the Standard and as such it is not required to carry out socio-economic monitoring every year.

E4: Environmental and biodiversity monitoring

- Fieldwork for an environmental impact evaluation has been done during 2021 and the report will be available by September 2022.

Part F: Impacts

F1: Evidence of outcomes

Part G: Payments for Ecosystem Services

G1: Summary of PES by year

- In accordance with the PDD, the contract signed between the farmers and the project stipulates that the farmers transfer their rights regarding the sale of carbon-credits to Sicirec Bolivia ltda. Sicirec subsequently transfers these rights to The Cochabamba Project Ltd. which represents all investors in the project. The Cochabamba Project Ltd in turn guarantees that the revenues it obtains for the carbon-credits will be transferred to the farmers as part of the total investment capital of the project. More specifically, carbon revenues will be used to make staged payments to the farmers for the establishment and maintenance of plantations. In addition to this, the farmers receive in-kind benefits, for example in the form of barbed wire, agroforestry plants and seed for cover crops. These payments are made periodically according to the fulfilment of specific monitoring targets rather than as and when certificates are sold.
- In accordance with the provisions established in the PDD, if the revenues for carbon credits cannot cover these payments, the project manager (SICIREC Bolivia ltda) is obliged to cover the deficit. The Cochabamba Project Ltd has undertaken to cover any such deficit as part of its overall investment commitment.
- Table 12 show the payments made to farmers in the second half of 2021. Cash payments amounting to the equivalent of 56,838 USD. have been made to farmers during this reporting period.

Table 12: Direct performance payments to farmers between 1st July and 31st December 2021

No Verif	Moment of Payment	Number of farmers	Surface (ha)	Total Amount (USD)*
V-01	Establishment	65	112.4	10.432
V-02	Maintenance 1 (after 3 months)	60	97.0	5.902
V-03	Maintenance 2 (after > 6 months)	54	127.4	7.750
V-04	Maintenance 3 (after > 10 months)	78	71.7	4.360
V-05	Maintenance 4 (after > 14 months)	38	35.6	2.167
V-06	Maintenance 5 (after > 20 months)	24	29.3	1.780
V-07	Maintenance 6 (after > 26 months)	25	54.5	3.316
V-08	Maintenance 7 (after > 36 months)	43	46.9	2.854
V-09	Maintenance 8 (after > 48 months)	40	41.2	2.507
V-10	Maintenance 9 (after > 60 months)	32	13.8	841
V-11	Maintenance 10 (after > 72 months)	15	55.7	3.389
V-12	Maintenance 11 (after > 84 months)	44	85.0	5.172
V-13	Maintenance 12 (after > 96 months)	33	56.0	3.407
V-14	Maintenance 13 (after > 108 months)	37	29.8	1.813
V-15	Maintenance 14 (after > 120 months)	11	14.9	905
V-16	Maintenance 15 (after > 132 months)	4	4.0	243
				56.838

- Table 13 shows the direct payments made to farmers from the start of the project.

Table 13: Total direct performance payments to farmers since the start of the project

No Verif	Moment of Payment	Number of farmers	Surface (ha)	Total Amount (USD)*
V-01	Establishment	471	727.6	67,000
V-02	Maintenance 1 (after 3 months)	391	601.4	33,983
V-03	Maintenance 2 (after > 6 months)	389	594.7	34,484
V-04	Maintenance 3 (after > 10 months)	386	480.3	28,748
V-05	Maintenance 4 (after > 14 months)	315	419.8	24,475
V-06	Maintenance 5 (after > 20 months)	283	368.3	21,586
V-07	Maintenance 6 (after > 26 months)	251	335.1	20,613
V-08	Maintenance 7 (after > 36 months)	231	296.3	18,092
V-09	Maintenance 8 (after > 48 months)	211	261.0	16,059
V-10	Maintenance 9 (after > 60 months)	193	217.9	13,293
V-11	Maintenance 10 (after > 72 months)	159	209.5	12,732
V-12	Maintenance 11 (after > 84 months)	152	186.2	11,500
V-13	Maintenance 12 (after > 96 months)	70	85.8	5,158
V-14	Maintenance 13 (after > 108 months)	48	44.7	2,718
V-15	Maintenance 14 (after > 120 months)	15	18.9	1,149
V-16	Maintenance 15 (after > 132 months)	4	4.0	243
				311,833

*includes tax according Bolivian tax-regulations

Table 14 shows the distribution of these payments according to planting year. As can be seen, a big part of the payments made have been concentrated on the recently established woodlots. The first year of a woodlot is the most critical one. That is why payments during the first year are made more frequently. From mid 2020 payments, for new plantations, payments are only made during the first 3 years. After this, the support of the project continues but without payments. Instead, farmers will receive more support on chain development of cacao, coffee and wood.

Table 14: Summary of payments made and held in trust

1. Reporting year	2. Total previous payments (previous reporting periods)	3. Total on-going payments (in this reporting period-2021)	4. Total payments made (2+3)	5. Total payments in budget 2021/2022/2023	6. Total payments withheld
PV1 (<2013)	48.540	6.348	54.888		N/A
PV2 (2014)	79.108	5.770	84.878		N/A
PV3 (2015/2016)	33.073	2.701	35.774		N/A
PV4 (2017)	16.878	-	16.878		N/A
PV5 (2018)	22.832	3.078	25.910	-38	N/A
PV6 (2019)	17.424	5.000	22.424	2.900	N/A
PV 2020	27.153	10.540	37.693	19.521	N/A
PV2021a	9.987	12.970	22.957	11.433	N/A
PV2021b		10.431	10.431	34.185	N/A
TOTAL	254.995	56.838	311.833	68.002	

In addition, during this period, farmers have received citrus, coffee and cacao plants for a value of 36.459 USD. In previous years this in-kind support accumulated to 144.195 USD as reported in the last report. The accumulated total payments plus in-kind contributions result in a total sum of 492.487 USD. In addition to this, farmers received tree plant material and professional advice, which is not taken into account in this sum.

The citrus plants, coffee, and cacao plants, which are planted by the farmers will also generate further Plan Vivo certificates. Technical Specification for agroforestry crops and fruit orchards are under elaboration.

Part H: Ongoing participation

H1: Recruitment

- An additional 27.1 ha of coffee has been planted within woodlots. a further 14.4 ha of cocoa and 6.0 ha of fruit trees have been planted. (resp. 75.850. 6.898 2.410 seedlings). The Technical Specifications are still in process of development to be able to demonstrate the extra biomass generated by the cacao. coffee and fruit trees. The main focus of coffee. cacao and fruit trees is to generate stable revenues for the smallholders over the long term. providing an alternative for slash and burn agriculture. Sicirec Bolivia ltda is developing the production chain for these products. creating a sustainable business model for the farmers as well as the project itself and in this way. it will be able to provide continuous support to the farmers to improve their livelihoods.

H3: Community participation

- Though not as regularly as in the previous years. the project coordinates its activities with the farmer organisations FESPAI (Northern La Paz). FEPAY. FECAR (Beni). the FECCT. FCIC. FUCU (Cochabamba Tropics). FSCIPAY (Yapacani) and the farmer organisation CSUTB (Santa Cruz). In those areas. which belong to an indigenous territory. the project coordinates with the corresponding organisations. i.e. the Council of Indigenous Tacana People (CIPTA) and the Regional Council Tsimane Mosetene (CRTM).
- “Forestry Committees” constitute the primary formal mechanism for the engagement of smallholders in discussion of 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.
- All committees have internal rules and procedures. which were originally approved at a meeting attended by all the farmers. All committees have a board of 4 members. of which 2 represent ArBolivia and 2 represent the communities. Board meetings take place at least every 2 months and here the members representing ArBolivia give an update of the situation on completed and planned activities and quality of the plantations. Accordingly. the internal rules of the committees in 2020 and 2021 assemblies should have been organized. in which ArBolivia presented the financial and a technical report to each of the forestry committees. However. due to COVID19 this has not been possible. Instead regular meetings with the board members have been held to monitor the problems and potential problems in the area. In 2022 general meetings will be organized again.

Part I: Project operating costs

- The Plan Vivo parcels are part of the wider ArBolivia project. Costs in 2021 for the 712 ha are based on the total expenses of the project. The break-down of these costs are shown in Table 15.

Total expenses relating to PV-Woodlots have been 516.164 USD; this does not include the preparation for the woodlots which will be established over the next few months. Revenues from PVU have been 497,520 USD. This means not all costs have been covered by donations obtained for PVU. Other costs are covered by the Cochabamba project ltd and revenues of Sicirec Bolivia ltda from other activities and it share in wood sales.

Table 15: break down of expenditures in 2021 related to PVU

Expense	Narrative	2021-1	2021-2	Total 2021	Further commitment
Social Engagement & site selection	Explanation about the project to new farmers. meetings with forestry committees, conflict resolution.	10.874	9.427	20.301	14.887
Trees to nursery gate	Seed collection. seedling production in	82.362	71.405	153.767	-
Land preparation, establishment: Transport + Training	Sites species matching. plantation design and capacity building for farmers	20.786	18.021	38.807	-
Land preparation, establishment	This are direct payments made to farmers upon establishment of the	10.432	8.971	19.403	-
Plantation maintenance: Training	Training of all PV farmers in plantation management. weeding. replanting.	78.441	68.005	146.446	7.764
Plantation maintenance	Direct payments to farmers once woodlot is well maintained	12.430	46.406	58.836	68.039
Monitoring	Quality control of plantations. measurements in permanent sample	13.210	11.453	24.663	13.565
Carbon costs	Payments to PV + certification costs	10.442	9.053	19.495	4.874
Overhead	Includes financial audits. office rents. depreciation of vehicles	18.451	15.996	34.447	4.560
Total		257.428	258.736	516.164	113.688

Annexes