



## Plan Vivo Annual Report 2013



26<sup>th</sup> February 2014

Prepared by: Anko Stilma  
SICIREC BOLIVIA Itda



## 1. Summary

<b>Reporting period</b>	January 2012 – December 2013		
<b>Technical specifications in use</b>	Forest plantations		
<b>Area under management (ha)</b>	<b>Areas put under management since last report (ha)</b>	195.75 hectares	No new surface assigned to PV
<b>Smallholders with <i>plan vivos</i> and PES agreements (total for project)</b>	<b>New smallholders with PES agreements since last report</b>	152 families	No new families
<b>Community groups with <i>plan vivos</i> and PES agreements (total)</b>	<b>New groups with PES agreements since last report</b>	152 families belong to 50 different communities	No new communities
<b>PES made to communities to date (\$)</b>	80,308 USD (payments) 37,195 USD + (materials) 111,257 USD		
<b>Plan Vivo Certificates issued to date</b>	13,415 tCO2e 21,351 tCO2e + 34,766 tCO2e*		
<b>Submission for Certificate Issuance for new areas under management (tCO<sub>2</sub>)</b>	No new certificate issuance		

\* A further 20% of ex-ante credits is held by the project until biomass measurements in the permanent sample plots demonstrate the carbon benefit estimated at the start of the project is being delivered.



## 2. Key Events, Developments and Challenges

### 2.1. Maintenance of Plan Vivo Plantations

As stated in the PDD, the ArBolivia project started in 2007 as a portfolio of small scale reforestation activities within the Clean Development Mechanism of the UNFCCC. However due to a change of policy as well as low carbon prices on the CDM-market the ArBolivia changed its focus regarding environmental services from a market approach to an approach based on the principle of reciprocity.

Farmer families are not subject to market and price changes neither are merely recipients of external aid, but they are vital associates of the project. This particular role requires appropriation of the project concepts by the farmers themselves and their communities in order to establish and maintain an active relationship. This relationship is formalised under a signed agreement between farmer families, and the project.

The plantations reported here, are plantations established in between 2008 and 2011 in the municipality of San Buenaventura, Rurrenabaque and San Borja , part of the so called “Rurrenabaque area” (see map) of the Arbolivia initiative and in the municipality of Puerto Villarroel in the Cochabamba Tropics.

*Figure 2.1: Location of the “Rurrenabaque” area*

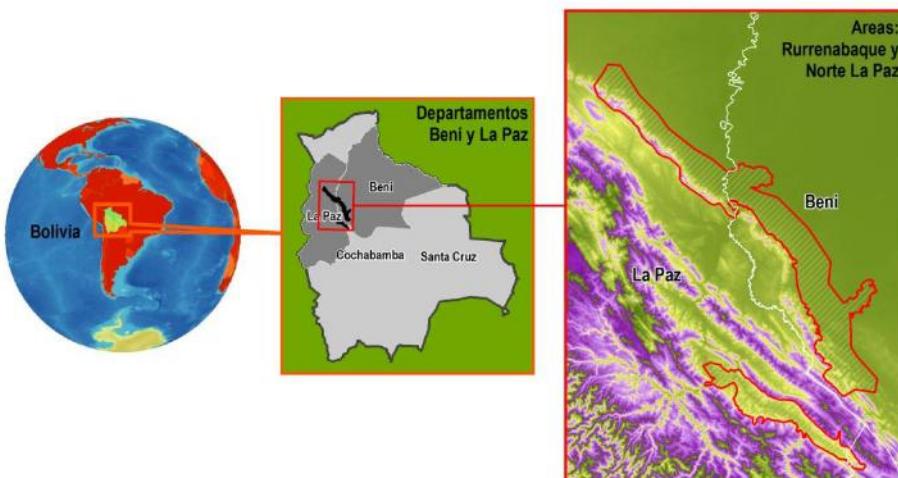
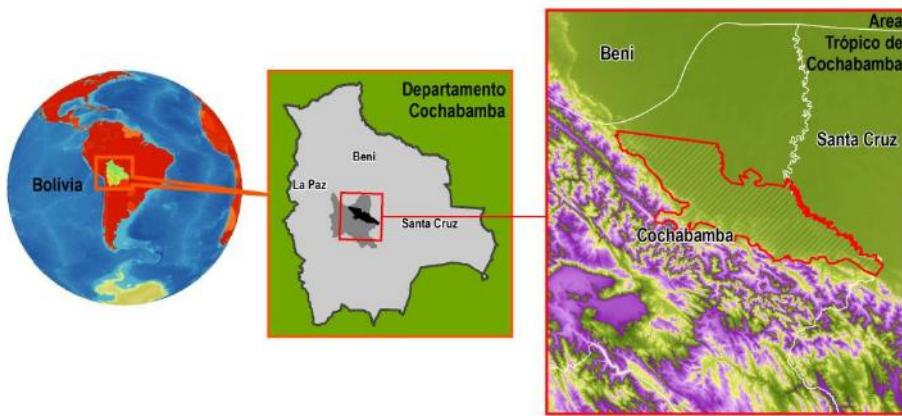




Figure 2.2: Location of the Cochabamba Tropics area



## 2.2 Developments and Challenges

- A new agreement was signed with the Council of Tacana Indigenous people.
- Also 2 new forestry committees were established, with communities belonging to the Tacana Indigenous Territory.
- Project monitoring for tree growth, environmental and biodiversity impact evaluation and socio-economic impact evaluation is in place.
- Planning for first thinnings has been completed. Furthermore, a market survey for the products which will be provided from these thinnings is done.
- A continuous challenge is controlling the cost of maintenance for the plantations whilst also guaranteeing the farmers their short term income. Additional to the woodlots, ArBolivia distributed citrus and cacao trees to the participating farmers in order to cover part of their medium term needs and to introduce sustainable agroforestry production. ArBolivia also started with the implementation of climate smart agriculture to cover the short term needs of the farmers and to adapt the farming systems to future climatic changes.
- The implementation of the ArBolivia project is now under full control of Sicirec Bolivia Itda.
- The micro-financing entity IDEPRO together with SICIREC-Bolivia started a pilot project for a micro-financing scheme, providing small loans to the participating farmers for activities based on their integrated farm plan, using the value of the trees as collateral. The loans will be provided in order to improve food and income security by improving agricultural practices through the introduction of organic cropping with higher biomass values.



### 3. Activities, total project size and participation

#### 3.1. Maintained surface

No new plantations were certified under the Plan Vivo standard in this reporting period. Existing plantations were maintained and silvicultural management was applied as shown in the table below. 0,8 has failed and 0,2 of this was substituted with another farmer. Totalling 195,15 has.

Table 3.1: Surface maintained per community under the Plan Vivo Standard (since the 2011 annual report)

Department	Municipality	Community	Surface maintained (ha)	Farmer families with agreement
Cochabamba	Puerto Villarroel	9 de Agosto	2,5	1
Cochabamba	Puerto Villarroel	Agro Sacta	1,5	1
Cochabamba	Puerto Villarroel	Alianza	3,9	1
Cochabamba	Puerto Villarroel	Gualberto Villarroel	3,6	2
Cochabamba	Puerto Villarroel	Valle Hermoso	24,4	10
Cochabamba	Puerto Villarroel	Villa Verde	5,6	3
Beni	Reyes	Propiedad privada	4,0	2
Beni	Reyes	San Jose	2,0	2
Beni	Rurrenabaque	Carmen Soledad	0,5	1
Beni	Rurrenabaque	Collana	6,0	5
Beni	Rurrenabaque	Colorado Bajo Nucleo 34	0,5	1
Beni	Rurrenabaque	Com. Villa Jichani	1,0	1
Beni	Rurrenabaque	El Bala	1,5	2
Beni	Rurrenabaque	EL CEBU	2,0	2
Beni	Rurrenabaque	Los Tigres	1,5	2
Beni	Rurrenabaque	Nueva Esperanza	3,5	4
Beni	Rurrenabaque	Nuevos Horizontes	2,0	2
Beni	Rurrenabaque	Propiedad privada	9,0	9
Beni	Rurrenabaque	San Bernardo	1,5	1
Beni	Rurrenabaque	San Miguel	0,9	1
Beni	Rurrenabaque	Ticala Linares	1,5	2
Beni	Rurrenabaque	Uncallamaya	0,5	1
Beni	Rurrenabaque	Villa el Carmen	0,5	1
Beni	San Borja	Borjanita	2,0	2
Beni	San Borja	El Palmar	2,0	2
Beni	San Borja	Embocada	0,5	1
Beni	San Borja	Inca Suyo	2,0	3
Beni	San Borja	Marca Coroico	0,5	1
Beni	San Borja	Propiedad privada	2,0	1
Beni	San Borja	San Juan	1,5	2
Beni	San Borja	Villa Borjana	2,0	2
Beni	San Borja	Villa Imperial	8,9	8
Beni	San Borja	Yacumita	6,0	6
La Paz	San Buenaventura	25 De Mayo	7,8	8
La Paz	San Buenaventura	Bella Altura	2,5	2
La Paz	San Buenaventura	Buena Vista	3,5	3
La Paz	San Buenaventura	Capaina	2,0	2
La Paz	San Buenaventura	Cinteño	1,7	2
La Paz	San Buenaventura	Colorado	1,7	2
La Paz	San Buenaventura	Esmeralda 1	0,8	1
La Paz	San Buenaventura	Everest	1,4	2
La Paz	San Buenaventura	Hurehuapo	10,2	8
La Paz	San Buenaventura	La Esmeralda	0,8	1
La Paz	San Buenaventura	Mayge	5,0	1
La Paz	San Buenaventura	Nuevo Palestina	3,6	2
La Paz	San Buenaventura	Propiedad privada	15,1	8
La Paz	San Buenaventura	San Isidro	6,0	4
La Paz	San Buenaventura	San Silvestre	5,6	5
La Paz	San Buenaventura	Santa Ana	9,2	6
La Paz	San Buenaventura	Tumupasa	11,1	10
<b>Total</b>			<b>195,2</b>	<b>152</b>



### 3.2. Mortality and new carbon projections

In the last progress report mention was made of areas which have shown high mortality during 2010 due to a cold period. ArBolivia was able to recover most of these areas in few cases other species were chosen due to availability in nursery. A total of 0,8 hectares of the surface was lost to mortality and was not replanted. These plots are reported as failed plots. The total of 0,8 hectares, belong to 2 farmers.

Table 3.2: Surface failed under the Plan Vivo Standard (since the 2012 annual report)

Department	Municipality	Community	Failed plots (ha)	Farmer families with agreement
La Paz	San Buenaventura	Colorado	0,3	1
Beni	San Borja	Villa Imperial	0,5	1
<b>Total</b>			<b>0,8</b>	<b>2*</b>

\* Both farmers have lost a small surface but have still plantations under Plan Vivo

In both cases it was *Tectona grandis* which got lost, trees were planted on land which before was used before for annual cropping (0,3 ha PV1) and perennial crops (0,5 ha PV2). The surface brought under PV as a substitute was 0,2 ha of *Centrolobium tomentosum* on land used formerly for annual cropping. See also annex 1 and 2.

3.3 Tree species planted and maintained per strata (surface in Ha)

Specie	Common name	Strata				Total Surface (ha)
		Annual	Grassland	Grass with trees	Perennial	
Buchenavia oxicarpa	Verdolago negro (pepa)	1,10			1	2,1
Calophyllum brasiliense	Palo María	7,41	0,6	1	1,34	10,35
Cedrela fissilis	Cedro	0,05				0,05
Centrolobium tomentosum	Tejeyeque	13,83			15,24	29,07
Dipteryx odorata	Almendrillo	19,93			15,28	35,21
Guarea rusby	Trompillo de altura	1,60			6,95	8,55
Hymenaea courbaril	Paquio	0,90				0,9
Schizolobium amazonicum	Serebo	0,50				0,5
Stryphnodendron purpureum	Palo yugo	6,93	0,4	0	1,82	9,15
Swietenia macrophylla	Mara	0,04				0,04
Tapirira guianensis	Palo román	9,45		0,05	0,8	10,3
Tectona grandis	Teca	72,20			4,21	76,41
Terminalia amazonica	Verdolago negro (de ala)	3,28		0,75	2,16	6,19
Terminalia oblonga	Verdolago amarrillo de ala	4,10		0	1	5,1
Virola flexuosa	Gabún	0,48	0	0,45	0,3	1,23
<b>Total</b>		<b>141,80</b>	<b>1</b>	<b>2,25</b>	<b>50,1</b>	<b>195,15</b>



Table 3.4: Tree species planted and average carbon stocks

Species	Common name	Strata				Total average GHG removal (tCO2e)
		Annual	Grassland	Perennial	Grassland with trees	
Buchenavia oxyacarpa	Verdolago negro (pepa)	257		232		489
Calophyllum basiliense	Palo María	1.567	128	285	213	2.193
Centrolobium tomentosum	Tejeyeque	3.186		3.480		6.666
Dipteryx odorata	Almendrillo	5.533		4.201		9.734
Guarea rusby	Trompillo de altura	458		1.975		2.433
Hymenaea courbaril	Paquio	211				211
Schizolobium amazonicum	Serebo	124				124
Tapirira guianensis	Palo román	2.898	-	241	15	3.154
Tectona Grandis	Teca	18.018		1.041		19.059
Terminalia amazonica	Verdolago negro (de ala)	913		597	208	1.718
Terminalia oblonga	Verdolago amarrillo de ala	936		226		1.163
Virola flexuosa	Gabún	97		60	91	248
Stryphnodendron purpureum	Palo yugo	1.826	105	476		2.406
<b>Total general</b>		<b>36.025</b>	<b>233</b>	<b>12.813</b>	<b>527</b>	<b>49.599</b>

As stated in the PDD the buffer is 10% in accordance with Plan Vivo requirements. Buffer is meant to cover an eventual loss of hectares or growth rates which are below the projected growth rates. Thought the buffer is 10% ArBolivia will only sell 70% of the expected carbon stocks as ex-ante credits, which means ArBolivia will retain another 20% until the biomass measurements in the permanent sample plots are demonstrating the actual amounts of carbon stocks as estimated.

This means 34,766 tCO2e of the total amount will be issued, 9993 tCO2e will be set aside by the project and 4,966.5 tCo2e will be maintained in a buffer.

Once biomass measurements and verification is done by an accredit verifier, credits from the retained amount can be sold as long the buffer will remain 10%. In case verification will result in higher losses than the 10% buffer, the 20% credits set aside by the project will be used to maintain the commitment made for the issued credits.

Plan Vivo credits are transferred by the implementing agency Sicirec Bolivia Itda to the IPS Cochabamba project ltd.

Table 3.5: Project CO<sub>2</sub> sales and allocations for this reporting period



Total volume of CO <sub>2</sub> forward sold (tCO <sub>2</sub> )	Total Sale Price (\$) <sup>1</sup>	Total number of producers/producer groups allocated to buyers	Total area (ha)	Technical specification applied	Price to producer/group (\$/tCO <sub>2</sub> ) <sup>2</sup>	% of Sale Price that will reach communities as PES*
34,766	Transferred to Cochabamba project, for further information see section 4	152	195,2	Forest Plantations	N/A (see section 6)	N/A (see section 6)

\* Please see for information on payments to farmers, section 6

<sup>1</sup> Pricing information will be removed before the report is made publicly available

<sup>2</sup> This information is used to assess whether the project benefit sharing structure is as laid out in the PDD. Please add an additional column to this table if there are additional payments to the community e.g. community trust fund.



## 4. Transfer of Plan Vivo Certificates

The implementing agency Sicirec Bolivia Itda transferred all Plan Vivo credits to the Cochabamba Project Ltd. . Within the philosophy of the project on reciprocity farmers are not subject to carbon markets or price fluctuations but in return the IPS Cochabamba project Itda guarantees full funding of the project activities, based on the real costs to implement and maintain the woodlots.

Of a total of 34,766 tCO2e for sale the IPS Cochabamba project Ltd has to date transferred a total of 23,722 tCO2e to other parties, as shown in table 4.1 below.

*Table 4.1: Plan Vivo certificates transferred to third parties*

Vintage	Name of purchaser/Source of Funds	Number of Plan Vivo Certificates purchased	Price per certificate	Total Amount Received (U\$)
2010	ForestFinance	10.034		
2010	Clearway Sustainability Resources Ltd	100		
2010	COzero Pty Ltd	100		
2010	Sydney Convention & Exhibition Centre	100		
2010	ZeroMission AB	2.463		
2010	ZeroMission AB	525		
2010	ZeroMission AB	93		
2011	ZeroMission AB	93		
2011	ZeroMission AB	2.604		
2011	ZeroMission AB	2.303		
2011	ZeroMission AB	307		
2011	Retired - Lifegate	5.000		
	Subtotal	23.722		<b>152.586,32</b>
2011	Not-sold	11.044		
	<b>Total</b>	<b>34.766</b>		<b>152.586,32</b>



## 5. Monitoring Results

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.

During the first two years 6 evaluation visits of the plantations are foreseen, after that this is reduced to one per year. In some cases, the number of evaluation visits planned during the first two years has had to be deferred because of delays by the farmer in proceeding with certain recommendations. Before the evaluations training is taken place, this is done on an individual base, as well group training.

The visits are carried out according the following scheme:

1. During establishment process a number of recommendations are made. Compliance with these recommendations is checked 1 to 3 weeks after. Although during site selection the coordinates were measured by GPS the area finally planted was measured again, giving the exact coordinates (UTM WGS84) and surface of each sector. Once introduced into the data base a unique sector code is assigned (annex 1a). If the farmer has followed up the recommendations, the technical adviser is authorized to proceed with the payments, which are based on the surface area, as measured and recorded.
2. Once established site visits take place on site training on maintenance of the plantations is given and after about 3 months, a second evaluation takes place, farmers will receive recommendations on how to carry out the maintenance if they have not done so yet on their own initiative or have not done so according to the general instructions given to all farmers.
3. In the first year after planting two other evaluation visits are carried out (3 and 4 in table 5.1), with the same purpose as the visits mentioned above, and during the second year another two visits (5 and 6 in table 5.1) are carried out. After that period evaluations related to payments will be done only once a year. Previous to all evaluation visits onsite training is given and recommendations are given on proper maintenance of the woodlots.

The different recommendations are grouped and the surfaces for which each of the recommendations was given is summarized in table 5.1. Detailed recommendations can be found in annex 4.

Although, it must be mentioned, that this was not always done within the established time frame, in the woodlots reported here all recommendations were followed up. Delays in the execution of activities by the farmers, or in cases where from a silvicultural point of view activities could be deferred without undue consequences, meant that in some cases only 4 payments were made during the two years.

- Pest control: Some pests, mainly ants might attack the plantations and there is a need to apply biological pesticides. These products were also provided by ArBolivia, or training was given on how to produce biological pesticides.
- Cover crop: Due to soil conditions it is recommended to implement a leguminous crop, in which case appropriate seeds were provided by ArBolivia
- Weeding: To avoid excessive competition between weeds and trees, weeding has to be carried out
- Replanting: In all cases when mortality exceeds 20%, replanting is recommended, ArBolivia provides the plants and the farmer carries out the planting.
- Pruning required: Branches and shoots



- 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 decided to begin raising cattle) new fencing is necessary. ArBolivia provides a quantity of barbed wire, while the farmer provides the poles and, and additional barbed wire, as required.
- Fertilization: Fertilization was recommended with organic fertilizer.
- Fire control measures: Where an elevated risk of forest fire has been identified, extra measures have been taken, such as incorporating firebreaks, cleaning the area and establishing cover crops.
- No recommendation: No specific recommendations were necessary

*Table 5.1: Main recommendations during evaluation visits: First year 3 evaluations, second year 2 evaluations and afterwards 1visit unless due to additional requirements more visits are necessary.*

Type of Recomendation	Main recomendations per hectare per evaluation visit								
	1	2	3	4	5	6	7	8	9
Pest control	7,25	23,45	30,80	23,75	22,65	16,10	5,70	1,20	1,00
Cover crop (establishment & mainte	20,30	13,20	25,20	13,00	13,00	14,50	5,50		
Weeding	96,35	90,40	86,90	105,25	85,40	86,80	66,60	43,50	10,90
Replanting (partially)	18,40	18,00	14,60	9,10	6,90	1,50	1,50		
Pruning required	0,50	7,20	21,90	30,75	44,45	49,20	68,40	19,70	10,50
Protection against cattle	18,30	6,50	4,75	1,50		0,50	0,50	0,50	0,40
Fertilization	0,50	1,50	1,50	3,00	2,50		1,75		
Fire control measures				0,70	1,00	1,35	0,60		
Various	0,90	0,90		1,00	7,10	3,00	5,00		
No recommendation	32,65	34,00	9,50	7,10	9,90	10,50	9,50	3,50	
	195,15	195,15	195,15	195,15	192,9	183,45	165,05	68,4	22,8

This data is checked on quality and data are verified in the field for consistency as described in the monitoring protocol.



## 6. PES update

In accordance with the PDD, the contract signed between the farmers and the project stipulates that the farmers will transfer their rights regarding the sale of carbon-credits to the Asociación Accidental Cetefor Sicirec (AACs). Sicirec Bolivia Itda, now the only partner in the AACs, will then transfer these rights to the investors in the project. The investors in turn will guarantee that the revenues they obtain 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. The payments are made periodically in line with specific monitoring targets.

In accordance with the provisions established in the PDD, if these payments cannot be covered by the revenues for carbon credits, the project manager (SICIREC Bolivia Itda) is obliged to cover the deficit. In the event that carbon revenues are higher than the partial payments then the surplus funds will be used for investments, which directly benefit the farmers, such as barbed wire, agroforestry plants etc.

Until now few Plan Vivo credits have been sold by the investor, which means payments to farmers until now are disbursed by the investor (SICIREC Group and IPS-Cochabamba Project Ltd).

The participating farmers received the payments shown in table 6.1

Table 6.1: Payments to farmers

Type of payment	Moment of payment	Number of farmers	Surface (ha)	Total Amount (BOB)	Total Amount USD (aprox)
Estab	Establishment	152	195,75	123.705	18.059
M1	Maintenance 1 (after aprox. 3 months)	152	195,75	59.934	8.749
M2	Maintenance 2 (after aprox. 6 months)	152	195,75	65.480	9.559
M3	Maintenance 3 (after aprox. 10 months)	152	195,45	68.555	10.008
M4	Maintenance 4 (after aprox. 14 months)	151	193,15	68.574	10.011
M5	Maintenance 5 (after aprox. 20 months)	145	183,45	65.598	9.576
M6	Maintenance 6 (after aprox. 26 months)	129	165,55	62.435	9.115
M7	Maintenance 7 (after aprox. 38 months)	65	69,4	26.680	3.895
M8	Maintenance 8 (after aprox. 50 months)	20	22,8	9.148	1.335
				550.109	80.308

\*includes tax according Bolivian tax-regulations

Payments amounting to the equivalent of 80,308 USD, besides farmers received citrus and cacao plants for a value of 13,450 USD, as well as seeds of leguminous species for a value of 500 USD, with the aim of improving the soil.

144 farmers received a total of 407 rolls of barbed wire with a value of 23.245 USD. Farmers receive barbed wire when there is a need to protect the young plantations against invasion by cattle.

Total direct payments and input additional to plantations costs is 117,503 USD.



## 7. Ongoing Community Participation

The project has a high presence in the area, and works closely with the farmers; partly by individual visits to the farmers, but also through the coordination with the farmer federation and the organisation of indigenous people. Communal and/or local organizational regulations, as well as verdicts, are mandatory for the project implementation according to their degree of authority. Therefore formal agreements with the farmers 'organisation FESPAI and FECAR are established. In 2013 the already ongoing coordination with the Council of Indigenous People Tacana (CIPTA) was formalized in an agreement.

ArBolivia coordinates its activities as well with the farmer federations FEPAY and the FECCT in Pto Villarreal

With the authorisation and help of the farmers' federation and the council of indigenous People Tacana, on this moment 9 forestry committees are functioning in the Plan Vivo areas. The forestry committees, as well as the communities, play an active role in decision-, strategy-, and policymaking. In table 7.1 below the Forestry committees are shown for each community. In the Cochabamba region it is the communities and the federation involved in decision-, strategy-, and policymaking.

These committees are organised according to their documented internal rules and procedures, which were approved during a meeting with all the farmers. All committees have a board of 4 members, of which 2 represent ArBolivia and 2 to the communities. Board meetings take place at least every 2 months in which the members representing ArBolivia are giving an update of the situation on the executed and programmed activities and quality of the plantations. If there are any problems raised whereby ArBolivia has failed in its commitment to the farmer, these are discussed at this meeting. Similarly if there are farmers, who have been having problems in the plantations and these problems could not be solved between the farmer and the fieldworker, then a solution is sought in the committee and if necessary a visit with one of the farmer members of the board and the field worker is arranged to visit the parcel. In the general meeting board members representing the farmers inform the farmers on the results of the activities, measures taken and measures which should be taken, as well as all the strategies and activities programmed until the next meeting. Once a year, ArBolivia presents a financial and technical report to the forestry committees.



Table 7.1: Community, farmer organisation and Forestry Committees

Department	Municipality	Community	Organisation	Forestry Committee	Surface (ha)	Farmer families with agreement
Beni	Reyes	Propiedad privada		Tamarindo	4,0	2
Beni	Reyes	San Jose	FECAR	Tamarindo	2,0	2
Beni	Rurrenabaque	CARMEN SOLEDAD		Almendrillo	0,5	1
Beni	Rurrenabaque	COLLANA	FECAR	Las Tecas	6,0	5
Beni	Rurrenabaque	Colorado Bajo Nucleo 35		Las Tecas	0,5	1
Beni	Rurrenabaque	Com. Villa Jichani		Las Tecas	1,0	1
Beni	Rurrenabaque	El Bala		Las Tecas	1,5	2
Beni	Rurrenabaque	EL CEBU	FECAR	12 de Junio	2,0	2
Beni	Rurrenabaque	LOS TIGRES	FECAR	12 de Junio	1,5	2
Beni	Rurrenabaque	NUEVA ESPERANZA	FECAR	12 de Junio	3,5	4
Beni	Rurrenabaque	NUEVOS HORIZONTES	FECAR	12 de Junio	2,0	2
Beni	Rurrenabaque	Propiedad privada		12 de Junio	3,5	3
Beni	Rurrenabaque	Propiedad privada		Almendrillo	5,1	5
Beni	Rurrenabaque	Propiedad privada		otro	0,4	1
Beni	Rurrenabaque	SAN BERNARDO	FECAR	Las Tecas	1,5	1
Beni	Rurrenabaque	SAN MIGUEL	FECAR	Ambiente Sano	0,9	1
Beni	Rurrenabaque	TICALA LINARES	FECAR	Las Tecas	1,5	2
Beni	Rurrenabaque	UNCALLAMAYA	FECAR	Las Tecas	0,5	1
Beni	Rurrenabaque	VILLA EL CARMEN	FECAR	12 de Junio	0,5	1
Beni	San Borja	Borjanita		Ambiente Sano	2,0	2
Beni	San Borja	EL PALMAR	FEPAY	Ambiente Sano	2,0	2
Beni	San Borja	Embocada		otro	0,5	1
Beni	San Borja	Inca Suyo	FEPAY	Ambiente Sano	2,0	3
Beni	San Borja	Marca Coroico	FEPAY	Ambiente Sano	0,5	1
Beni	San Borja	Propiedad privada		Ambiente Sano	2,0	1
Beni	San Borja	San Juan	FEPAY	Ambiente Sano	1,5	2
Beni	San Borja	VILLA BORJANA		Ambiente Sano	2,0	2
Beni	San Borja	VILLA IMPERIAL	FEPAY	Ambiente Sano	8,9	8
Beni	San Borja	YACUMITA	FEPAY	Ambiente Sano	6,0	6
COCHABAMBA	Puerto Villarroel	9 de Agosto	FECCT	otro	2,5	1
COCHABAMBA	Puerto Villarroel	Agro Sacta	FECCT	otro	1,5	1
COCHABAMBA	Puerto Villarroel	Alianza	FECCT	otro	3,9	1
COCHABAMBA	Puerto Villarroel	Gualberto Villarroel	FECCT	otro	3,6	2
COCHABAMBA	Puerto Villarroel	VALLE HERMOSO	FECCT	otro	24,4	10
COCHABAMBA	Puerto Villarroel	Villa Verde	FECCT	otro	5,6	3
LA PAZ	25 DE MAYO	25 DE MAYO	FESPAI	Gabun	7,8	8
LA PAZ	BELLA ALTURA	BELLA ALTURA	CIPTA	Tacana	2,5	2
LA PAZ	BUENA VISTA	BUENA VISTA	CIPTA	Tacana	3,5	3
LA PAZ	CAPAINA	CAPAINA	CIPTA	Tacana	2,0	2
LA PAZ	CINTEÑO	CINTEÑO	FESPAI	Madidi	1,7	2
LA PAZ	COLORADO	COLORADO	FESPAI	Madidi	1,7	2
LA PAZ	ESMERALDA 1	ESMERALDA 2	FESPAI	Gabun	0,8	1
LA PAZ	Everest	Everest	FESPAI	Gabun	1,4	2
LA PAZ	HUREHUAPO	HUREHUAPO	FESPAI	Madidi	10,2	8
LA PAZ	LA ESMERALDA	LA ESMERALDA	FESPAI	Gabun	0,8	1
LA PAZ	MAYGE	MAYGE	FESPAI	Gabun	5,0	1
LA PAZ	NUEVA PALESTINA	NUEVA PALESTINA	FESPAI	Gabun	3,6	2
LA PAZ	Propiedad privada	Propiedad privada		Gabun	10,5	5
LA PAZ	Propiedad privada	Propiedad privada		Madidi	3,0	2
LA PAZ	Propiedad privada Tumupasa	Propiedad privada	CIPTA	Mara	1,6	1
LA PAZ	SAN ISIDRO	SAN ISIDRO	FESPAI	Gabun	6,0	4
LA PAZ	SAN SILVESTRE	SAN SILVESTRE	CIPTA	Mara	5,6	5
LA PAZ	SANTA ANA	SANTA ANA	FESPAI	Gabun	9,2	6
LA PAZ	TUMUPASA	TUMUPASA	CIPTA	Mara	11,1	10
9	Total				195,2	152



## 8. Breakdown of Operational Costs

The Plan Vivo parcels are part of the wider ArBolivia project. A cost estimation was made for the 195,2 ha based on the total expenses of the project. In Table 8.1 a cost specification is given.

Total expenses per hectare are approximately 4,000 USD/ha. Plantations are on average 4.5 years old. A breakdown of the costs is shown in table 8.1. Costs per hectare can be reduced considerable if the scale of the project can be extended. Costs for personal are mainly on training of the farmers.

### 8.1 Break down of cost

Item	Total (USD)	Cost/ha (USD)
Promotion, organisational strengthening	27.504	141
Payments	80.173	411
Agroforestry	16.735	86
Barbwire	17.134	88
Seedlings	85.204	437
Personal	345.000	1.768
Plants/transport of plants	106.752	547
Taxes	41.786	214
Operational costs	22.291	114
Logistics	9.750	50
Tools/equipment	29.250	150
Total	781.578	4.005

## Appendix 1: Monitoring results for new plan vivos

Maps: Location of planting areas under Plan Vivo Standard

