

Envirotrade

Sofala Community Carbon Project

2011 Annual Report



Lucy Goodman

26 January 2012

1. Summary

Reporting period	Financials			
	October 2010 through September 2011			
Technical specifications in use	System Name and description	tCO ₂ per hectare	Technical specification	
	Faidherbia, dispersed interplanting of a nitrogen fixing tree with reverse phrenology in the machamba	117	MOZ-TS-DIP var. Faidherbia albida v. 2	
	Cashew, planting a cashew orchard	137	MOZ-TS-FO-cashew	
	Homestead, planting fruit and shade trees around the homestead	154	MOZ-TS-HP	
	Mango, planting a mango orchard.	115	MOZ-TS-FO-mango	
	Woodlot, planting a woodlot of indigenous tree species to provide fire wood.	184	MOZ-TS-WL	
	Boundary, planting a border of trees around the field or machamba or indigenous tree species to reforest the area.	12 tCO ₂ /100m	MOZ-TS-BOU v. 2	
	Gliricidia, dispersed interplanting of a nitrogen fixing tree.	37	MOZ-TS-DIP var.Gliricidia	
	No-burning of agri-residues, a payment to the farmer to incorporate agri-residues and not burn them in piles which is baseline scenario.	26	MOZ-TS-NBA v. 4	
	REDD+ ¹ , a conservation programme which rewards communities and individuals to protect zones from deforestation and degradation.	Dependant on stratification 39-158	Conservation of miombo woodland in Mozambique. Under going peer review. Ver 2.2	
¹ Previously Avoided deforestation technical specification, renamed in line with FAO definitions				
Area under management (ha) i.e. implemented plan vivos		Areas put under management since last report (ha)	12,000 ¹ ha	0 ha
Smallholders with plan vivos and PES agreements (total for project)		New smallholders with PES agreements since last report	2799	0
Community groups with plan vivos and PES agreements (total)		New groups with PES agreements since last report	28	0
PES made to communities to date		\$1,810,061		

¹ Includes REDD+ areas. Approximation, technical specification systems overlap on the same piece of land.

(\$)	
Plan Vivo Certificates issued to date	252,120
Submission for Certificate Issuance for new areas under management (tCO₂)	n/a

2. Key Events, Developments and Challenges

Events

Government



The Vice Minister of the Environment (MICOA) visited on 15 June 2011. Six Ministers of Parliament visited in June 2011 and met with the community. The ministers wanted to persuade the community to continue their work. The Administrator of Gorongosa district visited in August 2011. Government relations are good and continue to improve.

Antonio Serra, Envirotrade's Mozambique country manager, was invited to give a presentation at a government workshop on REDD on operational and financial issues.

The Land and Forest Department of the Ministry of Agriculture (MIAG) issued an authorisation for Envirotrade Sofala Limitada and Envirotrade Quirimbas Limitada for carbon sequestration and REDD+ (NoO2/DNTF/2011). This formalises the existing agreement with the Government of the Republic of Mozambique.

“As in the other study countries, it is too soon to predict the social and environmental impacts of REDD+ on forest communities because the REDD+ strategy and benefit-sharing mechanism have yet to be determined. If the mechanism includes a component similar to the Nhambita model, local communities and individuals could reap real benefits. In Nhambita, individual farmers have realized significant benefits in the form of cash payments, livelihood assistance and increased agricultural productivity. There appear to be measurable environmental benefits, too, in increased sequestered carbon and tree cover. The challenge will be to find a way to reduce transaction costs so that it is feasible to share performance-based benefits directly with smallholders. The community has received payments from carbon credit revenues linked to carbon stored on community-held forestland. The Nhambita community association has invested the funds to construct two schools, thus presumably benefiting the community as a whole.”

- Case studies on redd+ and carbon rights property rights and resource governance project (PRRGP).
USAID 2011

On 3 June 2011, Darryl Vhugen of Landesa visited, and contributed to a USAID working paper² on carbon rights. He used the Sofala Community Carbon Project as a case study. An excerpt from his paper is featured in the text box.

Carpentry Shop

Eamonn Heffernan, a volunteer carpenter, visited the project in January 2011 to lend assistance. His work was significantly impaired by the unavailability of power tools due to a broken generator. The hand tools were also found to be inadequate as they had not been maintained or sharpened. Eamonn has outlined a \$10,000 USD budget (not including buying a new generator) to get the carpentry shop up to standards again, and has produced a workplan for the carpentry team. There is a lot of potential, but unless the carpentry supervisor steps up and organises the workshop, the business will fail. The next step is for the management team to find a grant to rejuvenate the carpentry shop.

Saw Mill

Clients

Zeromission, Arla foods and Antalis visited on 2 April 2011. The impact of these visits on the project is profound as there is a real link made between the farmers and clients themselves. The visit went well, with the group visiting all of the systems, having a dance and goat party in the community and celebrating national ladies day.

Students and University linkages

Two students from Eduardo Mondlane University in Maputo visited the project for their thesis development. Professor Almeida Siteo visited to develop new allometrics in the Sofala province and stayed in Nhambita.

Land tenure



² Full paper is found here: <http://www.forestcarbonasia.org/other-publications/redd-and-carbon-rights-lessons-from-the-field/>



This year, the saw mill arranged for their own licence. This is an improvement over 2009, when they failed to apply on time. In order to raise finance for repairing board making equipment, the saw mill has sold logs this year, rather than boards to the carpentry shop. This is a process which needs to be carefully monitored. They have also not been following the forestry department's legislation by enumerating and marking the logs with chalk. Aristides Muhate has developed excellent and easy to follow guidelines for the saw mill and the government forestry department will be involved in making sure the saw mill operates with good practice and within the law.

The saw mill's targets for next year will be to sell only boards, to have organised their own licence

again and to be enumerating their timber to ensure it is within the annual allowable cut defined in the management plan and within their licence.

Bakery

A bakery was set up by Envirotrade, and the ladies involved in its operation received training from ADEL Sofala. This is one of many potential collaborations Envirotrade could have with ADEL and we hope to work with them in future.

Envirotrade Operational Database

Paul Watts, a UK-based volunteer, continues his sterling efforts in database design. The database will be rolled out for this year's pay sheets, and this will significantly speed up the PES payment process. Data capture continues to be a problem across the 2 sub-project sites.

Aristides Muhate should be applauded for his work standardising the data capture and entry following his move to Nhambita from Cheringoma in 2011. In January 2012, Aristides attended a database workshop in the UK to help with the rollout of the new Envirotrade Operational Database. Aristides has also brought the audit system from Zambezi Delta to Gorongosa, which will greatly professionalise the technician team. Small prizes will be offered in Zambezi Delta and Gorongosa this year to the best technician performance during the audit.





We have had several setbacks in 2011 with the database, first with computer problems and data loss, second with high absenteeism from the database administrator at the Gorongosa sub-project site (who eventually left unexpectedly) and third with the poor health of the database administrator in Cheringoma, Tichaona Gwenzi . We hope Tichaona makes a full recovery and our thoughts are with his family.

Positive developments on the database front are that a replacement for the Gorongosa database administrator has already been found, and computer hardware has been replaced. A new protocol for backing up data on the existing hard drives will shorten delays when computers break down.

Farmer news

In the last two years, a lot of farmers have begun to replace dead trees themselves from the community nurseries or their own small initiatives. When Envirotrade has struggled with transportation of seedlings they have picked them up under their own steam. Lots of farmers, particularly in Mucombeze would like to join up to make new Plan Vivo systems. Annual payments for ecosystem services continue to enable farmers to make one-off capital expenditures on required items, like sustainable roofing for housing and durable goods.

This year, more than others, there was a problem with the timing of the delivery of the seedlings and the farmer timetable. The farmers



ZeroMission visit Joao Ranguisse



need to clear the fields at the same time as they are planting the trees, which created some conflict in time management.

REDD legalisation of areas

Antonio Serra has made significant progress on the legalisation of the REDD areas with the community association. A proposal has been drafted and submitted to the district administrator. It is now in his hands whether it goes to the next stage.

DUATs in Zambezi Delta site

An agreement has been made with ITC, the Community Land Institute – a Mozambican NGO, to develop a project to secure DUATs (land tenure certificates) for the 7 regulados Envirotrade works with in Marromeu: Mponda, Chithunco, Mangazi, Nzou, Gombe-Gome, Cine and Gorra. This will not only secure land rights of the communities but will also support potential REDD project development.

Gile consultancy

The Envirotrade team completed a consultancy for IGF, a French NGO responsible for the Gilé National Reserve in Zambézia Province. The experience helped professionalise our approach to carbon stock estimation, as well as assisting with raising our profile in Mozambique.



Gorongosa National Park

A draft MOU is now in the hands of the park, which will resolve any conflicts which may arise and lead to increased collaboration between our two organisations.

DUAT for Envirotrade

It is Envirotrade's policy not to own land. However, this year we were advised by the government that we

must apply for a DUAT (land tenure certificate) for the Gorongosa camp, given the large amount of infrastructure which exists there. The DUAT was successfully acquired in 2011, and the 133 ha area has been delimited by concrete markers. The plan for this land has always been to return it to the community when Envirotrade leaves, this plan has not changed with the acquisition of a DUAT.

Challenges

As in previous years, lack of funds was the greatest challenge of 2011. As shown in Section 9, the sale of Plan Vivo Verified Emission Reduction (VER) certificates covered only 42% of the operational expenses of the Sofala Community Carbon Project during the reporting year. The need to rely on Envirotrade for cash subsidies to the project greatly depressed our ability to transport and pay for seedlings, carry out monitoring and liaise with the community. However, toward the end of 2011, there was an upswing in sales which has made a big contribution to both cash flow and confidence. We hope this trend will continue in 2012.

Piet van Zyl, who left Envirotrade as country manager in 2009, continues to live in the Envirotrade camp, while running the community tourism camp. The ministry of tourism have insisted that he legalise his stake in that business. His continued presence and complications arising from it have been a distraction from project operations. The legal fees in pursuing the court cases against Mr van Zyl in relation to financial irregularities discovered after he left the company have also been an unwelcome drain on the project's limited resources.

At the beginning of calendar year 2011, 11 staff members (of a total of 48) at the Gorongosa sub-project were made redundant to deal with ongoing financial difficulties and to adjust to the fact that the project has not been growing over the past two years. This process was carried out in full conformance with Mozambique labour law. Those people who were made redundant have invested their compensation in kiosks, houses and livestock.

Shortage of finances has meant that we have not been able to provide as many seedlings as were required in 2011. In Zambezi Delta, 300,000 were required but only 95,000 could be purchased. 30,000 remained in the nursery due to transport constraints and will be delivered in 2012. In Gorongosa 125,000 seedlings were required, but only 105,000 were available. The planting schedule is therefore stretched out to cope with this issue.

Illegal logging by a forest concessionaire was carried out in Pavua ward in the North of the Chicale Regulado. This was reported to the community association which, in conjunction with Envirotrade, put a stop to it by informing the district forest authority. Currently, we are

working with the government to control charcoaling in the area. One farmer has a licence to produce charcoal in Mbulawa, but we suspect he is laundering charcoal from other farmers. While charcoaling has not yet affected the REDD areas, we believe it is important to address it whenever we become aware of it.

3. Activities, total project size and participation

Total number of producers in each site:

Type	Gorongosa sub-project	Zambezi Delta sub-project	Grand Total
Group	16	12	28
Men	797	898	1,695
Women	602	502	1,104
Grand Total	1,415	1,412	2,827

Total area size of each system:

System	Area (ha) ³
Boundary	2,594 ⁴
Cashew	210
Gliricidia	54
Homestead	138
Faidherbia	1,107
Mango	56
No fire	2,805
Woodlot	276
REDD+	9,105

Total number of contracts

³ This is not the absolute area but rather the area that the system covers which may overlap with other systems

⁴ Estimate based on perimeter

	Subproject - numbers of agro-forestry contracts		
System or technical specification	Gorongosa	Zambezi Delta	Grand Total
Boundary	1,277	1,028	2,305
Cashew	97	116	213
Gliricidia	66		66
Homestead	215	428	643
Intercropping	822	157	979
Mango	59		59
No fire	1,531	1,307	2,838
Woodlot	83	129	212
Grand Total	4,150	3,165	7,315

There are no new farmers or contracts this year as the project is in its monitoring phase.

4. Submission for Plan Vivo Certificate Issuance

All carbon in the contracts has been monitored, no contracts were signed between 2010/2011 and the most recent 2009/2010 contracts have undergone monitoring in 2010. The table below summarises the carbon in the agroforestry database only which has been allocated or otherwise to all VER sales ever made by the project.

Status of carbon	tCO ₂	Technical specification applied	Price to producer ⁵
Carbon which has been allocated to buyers	231,598	All agro-forestry technical specifications	111.5 MZN/tCO ₂
Carbon allocated To Envirotrade in 2011 ⁶	40,000	All agro-forestry technical specifications	111.5 MZN/tCO ₂

⁵ Less any discounts for replacement trees, see section 9 for the breakdown between producer payments and operations costs from sale price.

⁶ The carbon has been allocated to Envirotrade for issuance but not retirement into the Markit registry. Envirotrade should be able to make immediate issuance on this amount.



Status of carbon	tCO ₂	Technical specification applied	Price to producer ⁵
Carbon that can be allocated but hasn't been sold ⁷	70,727	All agro-forestry technical specifications	111.5 MZN/tCO ₂
Suspended contracts which could be allocated in 2012	68,022	All agro-forestry technical specifications	111.5 MZN/tCO ₂
Cancelled carbon no longer available for sale	46,171	All agro-forestry technical specifications	111.5 MZN/tCO ₂
Total Carbon Stock	456,518	All agro-forestry technical specifications	111.5 MZN/tCO ₂

In 2011 all sales have been allocated to agroforestry contracts only. There remains a balance of REDD+ credits, which will not be sold while the company reviews the strategic options available for monetising that carbon.

⁷ Signed monitored contracts without a buyer

5. Sales of Plan Vivo Certificates

Date	Client	Sum of tCO2e	new to 2011 annual report	USD Price per tCO2	Total USD	2011 Certificate Issuance Fee (\$0.30 per Certificate)	2011 Registry fee (\$0.05 per Certificate)
27/01/2004	Future Forests (Carbon Neutral Co)	9,175.00					
02/12/2005	Creative Artist Agency	25,000.00					
2006	Creative Artist Agency	30,000					
2006	IIED	1,116					
2007	Individuals	112					
01/03/2007	Man Group	7,000					
20/06/2007	ZeroMission	13,542					
25/06/2007	Live Earth	3,000					
19/01/2008	Environmental Media Association	4,500					
21/01/2008	Man Group	8,492					
01/03/2008	Global Cool	1,000					
17/04/2008	Anna Davidson	5					
30/06/2008	ZeroMission	3,940					
23/07/2008	Creative Artist Agency	8,808					
01/09/2008	Man Group	1,033					
02/10/2008	Andrew Brown	8					
15/11/2008	ZeroMission	11,266					
20/11/2008	E.Value	500					
25/11/2008	University of Cape Town	11					
01/12/2008	Impact Choice Ltd	500					
22/01/2009	Beyond the Line (ZeroMission)	21					
22/01/2009	Event Less Talk (ZeroMission)	11					
22/01/2009	Max Hamburger (ZeroMission)	20,590.00					
22/01/2009	MPI (ZeroMission)	2					
22/01/2009	PMC Hydraulic (ZeroMission)	33					
22/01/2009	the Fair Tailor (ZeroMission)	12					
22/01/2009	U&W [you&we] (ZeroMission)	57					
22/01/2009	ZeroMission	312					
22/01/2009	Map / Antalis (ZeroMission)	52					
20/04/2009	Arla Foods (ZeroMission)	5,877					
13/07/2009	Arla Foods (ZeroMission)	3,580					
14/07/2009	Man Group	6,000					
01/09/2009	Creative Artist	6,658					



Date	Client	Sum of tCO2e	new to 2011 annual report	USD Price per tCO2	Total USD	2011 Certificate Issuance Fee (\$0.30 per Certificate)	2011 Registry fee (\$0.05 per Certificate)
	Agency						
10/11/2009	Arla Foods (ZeroMission)	3,156					
10/11/2009	ZeroMission	496					
10/11/2009	Map / Antalis (ZeroMission)	348					
17/11/2009	Emily Woollen	25					
30/11/2009	Map / Antalis (ZeroMission)	100					
20/12/2009	Kevin Seely	2					
24/12/2009	Nicole Jecks	20					
27/12/2009	Max Hamburger (ZeroMission)	24,708					
27/12/2009	Carl Bennet AB (ZeroMission)	711					
23/04/2010	Alviks Måleri Stockholm (ZeroMission)	90					
23/04/2010	Alviks Måleri Uppsala (ZeroMission)	30					
23/04/2010	Arla Foods (ZeroMission)	6,564					
23/04/2010	TNSI (ZeroMission)	2					
23/04/2010	ZeroMission	904					
23/04/2010	Map / Antalis (ZeroMission)	700					
23/04/2010	Climate Action / CA2 (ZeroMission)	16					
24/08/2010	Arla Foods (ZeroMission)	3,128					
24/08/2010	Henrik Lampa (ZeroMission)	2					
24/08/2010	Länsförsäkringar Skåne (ZeroMission)	285					
24/08/2010	ZeroMission	713					
13/09/2010	Impact Choice Ltd	1,000					
21/09/2010	Wedderwill Farming Partnership	329					
11/10/2010	Arla Foods (ZeroMission)	3153					
16/11/2010	Map / Antalis (ZeroMission)	2600					
Remaining stock allocated 2010	Envirotrade	5400					
15/12/2010	Creative Artists Foundation	6219	x			1865.70	310.95
24/01/2011	The Carbon Neutral Company	1000*	x			Already paid	Already paid
23/02/2011	Arla Foods (ZeroMission)	3427	x			1028.10	171.35
01/04/2011	Antalis (ZeroMission)	1700	x			510.00	85.00
02/05/2011	Arla Foods	6143	x			1842.90	307.15



Date	Client	Sum of tCO2e	new to 2011 annual report	USD Price per tCO2	Total USD	2011 Certificate Issuance Fee (\$0.30 per Certificate)	2011 Registry fee (\$0.05 per Certificate)
	(ZeroMission)						
09/06/2011	Impact Choice Ltd	1000	x			300.00	50.00
21/06/2011	Associated Engineering Group Ltd	4600*	x			Already paid	Already paid
07/07/2011	International Union for Conservation of Nature (IUCN)	2410	x			723.00	120.05
08/07/2011	Arla Foods (ZeroMission)	2000	x			600.00	100.00
21/07/2011	Climate Partner Gmbh	5000	x			1500.00	250.00
04/08/2011	ClimateAfrica	4	x			1.20	0.20
26/08/2011	Antalis (ZeroMission)	2000	x			600.00	100.00
30/09/2011	CF Carbon Fund II	29000*	x			Already paid	Already paid
18/10/2011	Coop DK plus others (ZeroMission)	4000	x			1200.00	200.00
14/11/2011	TUI Nordic (ZeroMission)	2285	x			685.50	114.25
21/11/2011	Arla Foods plus others (ZeroMission)	5000	x			1500.00	250.00
29/11/2011	TUI Nordic (ZeroMission)	2379	x			713.70	118.95
07/12/2011	Creative Artists Foundation	6736	x			2020.80	336.80
allocated 2011	Envirotrade	40000 ¹	x			12000.00	2000.00
total carbon sold and allocated		306,198					
Total carbon allocated to Envirotrade		45,400					
total carbon revenue USD					\$2,664,934		
average price for sold Carbon				\$8.71			

Pricing information has been removed for client confidentiality.

Sales in **red** are those which are attributed to the September 2009 to October 2010 cash income and can be compared alongside section 9 "breakdown of operation costs" which has the same reporting period.

* indicates a sale of carbon to a buyer from the carbon stocks issued to Envirotrade with the 2010 annual report.

¹ indicates an allocation of unsold carbon which can be used as immediately retirable stock in the Markit Environmental Registry for immediate issuance to clients.

6. Monitoring Results

Agro-forestry monitoring results (summary for Gorongosa and Zambezi Delta)

For a more detailed breakdown of monitoring results, please request database print outs from the Plan Vivo Foundation.

Total contracts by monitoring condition

Monitoring condition	Gorongosa	Zambezi Delta	Grand Total
Contract suspended	590	420	1010
Full payment	1514	1530	3044
Payment cancelled	1145	324	1469
Payment with discount	900	894	1794
Grand Total	4149	3168	7317

Total carbon by monitoring condition (tCO₂)

Monitoring condition	Gorongosa	Zambezi Delta	Grand Total
Contract suspended	41319	26703	68022
Full payment	111350	61180	172530
Payment cancelled	38142	8029	46171
Payment with discount	111093	58702	169795
Grand Total	301904	154614	456518

Reasons for payment cancellations are:

- Fires
- Poor establishment after three years of planting
- Abandoned fields

Contracts suspended due to:

- High rate of mortality (greater than 85%)

Payments with discount due to:

- Mortality between 15% to 85%

REDD+ monitoring results.

A new REDD+ monitoring system was developed in 2011 which will fulfil both Plan Vivo and VCS requirements. A system of 144 monitoring plots within the protected areas will be used to objectively measure changes in biomass and causes of change. Next year's payments will be based on the results of monitoring from these plots, in coordination with the reports from the monitoring teams.

Having not been paid to the community for 2 years, the 2008 and 2009 REDD+ payments were made in late 2011. 2010 payments will be based on 2010 monitoring reports from the patrolling teams which have not yet been completed. No deductions were made as a result of non-compliance for 2008 and 2009. The delay in payments was due to waiting for a management decision to be made as a result of completing the REDD technical specification requirements in 2009.

REDD+ degradation monitoring 2011⁸

area number	area name	Average of average tC/ha removals ⁹
2	Nhambita Mucinhaua	0.10
5	Vunduze	0.00
6	Mbulawa Mudoda	0.46
9	Cristiano	0.04
10	Serra	0.21
12	Telix	0.00
13	Gorongosa aventuras (was Sakki)	0.03
14	Paulo Sozinho	0.00
15	Chico Joao	0.01
17	Luis Felix	0.23
18	Raimundo	0.00
19	Costa Pereira	0.17
20	Ernesto Seda	0.10
21	Neto Chimuaza	0.05
27	Antonio Jairosse Raete	0.14
28	Augusta Lucas Joao	0.08
29	Eduardo Manuel Camujoma	0.02
30	Gaspar M. Camujoma, Zito M. Camujoma e Manuel	0.01
31	Gaspar Manuel Camujoma	0.02
32	Jeremias Manuel Camujoma	0.02
34	Joao Miquissene Gil 2	0.19
35	Joaldo Joaquim Sozinho	0.04
36	Manuel Camujoma	0.03
37	Manuel Dias Samacueza	0.19
38	Marcos Fazenda e Pedro Sevene	0.17
39	Pereira Jairosse Raete 1	0.55
40	Pereira Jairosse Raete 2	0.12
41	Ramos Manuel Camujoma	0.03

⁸ Protocol for calculating degradation is in "SOF_VCS_degradation calculations"

⁹ Red shading indicates degradation is in the top 10% of removals.

area number	area name	Average of average tC/ha removals ⁹
42	Soares Oliveira Gonza	0.00
43	Vicente Inacio Luis	0.47
44	Zito Floe Phuta	0.00
45	Zito Miquitaio Camujoma	0.06
46	Magaio Zebedia	

The 2011 degradation monitoring results can be used to base deductions on for 2011 payments made in 2012. As well as these degradation results, the patrolling reports for deforestation events such as opening of machambas can also be reported. These will be a critical supporting mechanism as some false negatives in the system are already identified i.e. area 6 has little anthropogenic degradation issue visually.

REDD+ deforestation monitoring 2011

Table 1 Table from REDD+ technical specification.

Deforestation indicator	Likely contributing factors		Payment response/ adjustment
Deforestation <25% of baseline rate	Governance working effectively	Protection activities implemented effectively	Payment continues as per schedule
Deforestation 25-75% of baseline rate	Significant breakdown in governance	Protection activities not properly implemented	Payment reduces by 50% until next annual monitoring and enforcement of corrective actions
Deforestation >75% of baseline rate	Governance not functioning	No effective protection activities	Payment suspended until next annual monitoring and enforcement of corrective actions

A new paper published in 2011 by the Edinburgh Miombo group gave the opportunity to assess deforestation events between 2007 and 2010. While there was an uncertainty of $\pm 12\text{tCha}^{-1}$, the products provided by Edinburgh can be used as an indication of where deforestation events have happened.

Area number	area name	Deforestation between 2007 and 2010	Annual deforestation rate ¹⁰	Estimated proportion of baseline deforestation rate ¹¹
-------------	-----------	-------------------------------------	---	---

¹⁰ A loss of biomass between 2007 and 2010 greater than 20 tC/ha was considered as deforestation, however there was an uncertainty in both products of $\pm 12\text{tCha}^{-1}$. It is suggested for a thorough understanding and interpretation of these results you should read: Ryan 2011: Quantifying small-scale deforestation and forest

Area number	area name	Deforestation between 2007 and 2010	Annual deforestation rate ¹⁰	Estimated proportion of baseline deforestation rate ¹¹
1	Nhambita Boemaria	1.4%	0.4%	18%
2	Nhambita Mucinhaua	2.8%	0.8%	35%
3	Muncinuaua Munhanganha Nhambita	2.0%	0.6%	25%
5	Vunduze	6.0%	1.8%	75% ¹²
6	Mbulawa Mudoda	0.6%	0.2%	7%
9	Cristiano	4.2%	1.3%	53%
10	Serra	0.3%	0.1%	4%
11	Envirotrade camp	6.9%	2.1%	86%
12	Telix	0.0%	0.0%	0%
13	Gorongosa aventuras (was Sakki)	0.2%	0.1%	3%
14	Paulo Sozinho	0.0%	0.0%	0%
15	Chico Joao	7.3%	2.2%	91%
16	Mario Chimuaa	8.8%	2.6%	110%
17	Luis Felix	0.0%	0.0%	0%
18	Raimundo	2.2%	0.7%	27%
19	Costa Pereira	1.0%	0.3%	13%
20	Ernesto Seda	0.0%	0.0%	0%
21	Neto Chimuaa	5.0%	1.5%	62%
27	Antonio Jairosse Raete	0.0%	0.0%	0%
28	Augusta Lucas Joao	7.4%	2.2%	92%
29	Eduardo Manuel Camujoma	0.0%	0.0%	0%
30	Gaspar M. Camujoma, Zito M. Camujoma e Manuel Camujoma (Camujoma brothers)	1.1%	0.3%	13%
31	Gaspar Manuel Camujoma	0.7%	0.2%	9%
32	Jeremias Manuel Camujoma	9.8%	2.9%	123%
33	Joao Miquissene Gil 1	5.6%	1.7%	69%
34	Joao Miquissene Gil 2	0.0%	0.0%	0%
35	Joaldo Joaquim Sozinho	8.8%	2.6%	110%
36	Manuel Camujoma	0.0%	0.0%	0%
37	Manuel Dias Samacueza	0.0%	0.0%	0%
38	Marcos Fazenda e Pedro Sevene	0.0%	0.0%	0%
39	Pereira Jairosse Raete 1	0.0%	0.0%	0%

degradation in African woodlands using radar imagery, *Global Change Biology*. This paper focuses on the region as a whole, rather than the protected REDD+ areas which are part of the project.

The greatest time differential between the images being compared was used to estimate annual deforestation rate, 3.3 years.

¹¹ The expected baseline deforestation rate, was 2.4%. Refer to Slivia Flaherty's section of the final end of project report on www.miombo.org.uk/documents for the technical background to this assumption.

¹² Machambas were initially mapped inside the protected areas, however as they have been delineated, these will be subtracted from the Plan Vivo risk buffer once a modality for the event has been outlined.



Area number	area name	Deforestation between 2007 and 2010	Annual deforestation rate ¹⁰	Estimated proportion of baseline deforestation rate ¹¹
40	Pereira Jairosse Raete 2	10.0%	3.0%	125%
41	Ramos Manuel Camujoma	0.0%	0.0%	0%
42	Soares Oliveira Gonza	0.0%	0.0%	0%
43	Vicente Inacio Luis	2.9%	0.9%	37%
44	Zito Floe Phuta	0.0%	0.0%	0%
45	Zito Miquitaio Camujoma	15.4%	4.6%	192%
46	Magaio Zebedia	1.1%	0.3%	14%

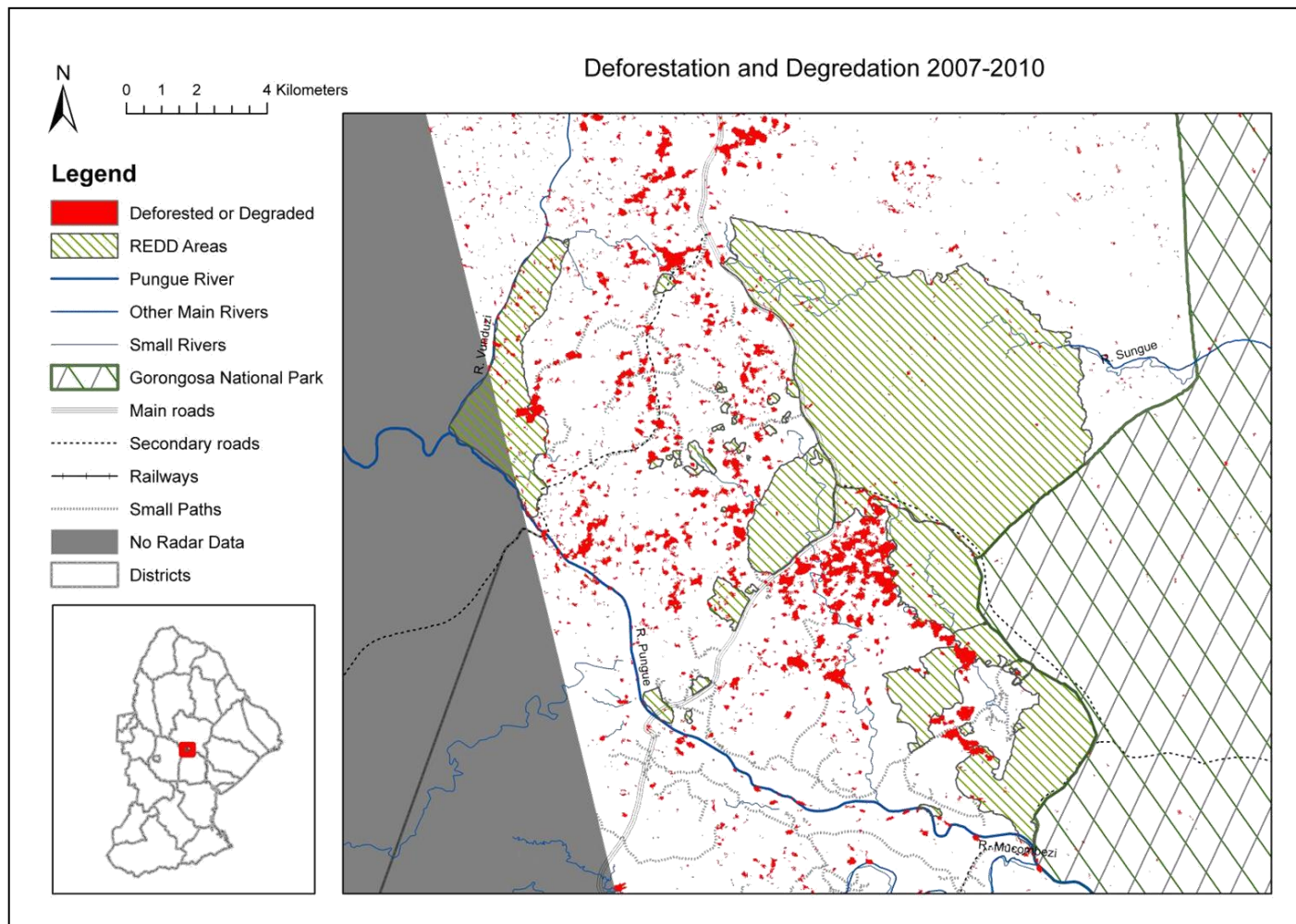


Figure 6-1 An estimate of deforestation events in the Chicare regulado derived from Ryan (2011).

Governance report

The REDD technical specification states that an annual governance report should be produced by the community association on their activities.

Report on Activities realised in the year 2011/2012

The meeting for natural resources management in Nhambita realised activities during 2011 in relation to the following Plans:

- Forestry Management
- Seedlings production
- Timber harvesting
- Native species' Reforestation and
- Financial administration

With reference to the first point given by the C.G.R.N in coordination with Envirotrade, 41 people were contracted, divided into 7 blocks tasked to open up firebreaks, cold fires and patrols.

Production of seeds for the native species is going on satisfactorily with reference to the visit we had earlier, and it indicates that we will be having seedlings ready for planting for the following season 2012/ 2013.

In the harvest of timber the committee explored 225m of the total 250m required with reference to the Licence. To guarantee sustainable timber resources, there is a reforestation programme for native species

Financial Administration

The local community were paid 179,000 Meticaís from Envirotrade resulting from the programme of Native Species Forestry conservation and administration. The Saw mill contributed 3% to the Community Fund, 50,000 MZN, while the carpentry shop is involved in the manufacture of furniture for the local primary school, EP1 de Mucinha.

Problems and challenges faced

Veld Fires

Despite assistance from Envirotrade's technicians, the community under Chief Chicare continues to face the serious problem of uncontrolled veld fires.

In Mbulawa on the 3rd of September 2011 there was a report of a fire outbreak resulting in the loss of 8 houses, 6 granaries, 3 kiosks and a large quantity of sorghum. Also on the 25th of July and 25th of October 2011 in Nhambita there was an outbreak of fire in an area belonging to Mr Chitambe Jorge João. This consumed the orchard which consisted of a Banana orchard and a Cashew Orchard. It also consumed the following systems of conservation; intercropping, Faidherbia, banana orchard and sugar cane belonging to Mr Chingamoio António Jemusse. The person who started the fire is not known, but this was a criminal offence which is being dealt with by the police.

Main causes of veld fires

There are three main causes of veld fires in our case, namely: poaching, making of charcoal, and opening of new fields.

Opening of new fields within the conservation area

Within the area of community conservation, three new fields were reportedly opened. The case reported in Block 3 was handed over to the local authorities. In another case, poachers had mounted 25 wire traps which were found and confiscated.

Another notable incident involved a timber trader/lumberman who was illegally felling trees in Pavua. The locals and the Forestry technicians of Envirotrade decided to report the issue to the Provincial Forestry Department of Sofala, which later reported that he had managed to extract a total area of 3.169m³ of Chanfuta species. The Provincial Forestry Department of Sofala charged him to pay a fine of 41,664 Meticaís for the crime. The timber trader abandoned the area. Because he had not paid the fine or delivered roofing material he had promised to the community, his tractor was confiscated by the community.

Challenges

- Revitalizing the fiscal committee
- Holding awareness programmes with the community
- Involve the saw mill in the reforestation programme
- Involve community leaders and district authorities in stopping activities of charcoal production

7. PES update

Agro-forestry

In 2011 3,481,326 MZN was paid for Gorongosa agro-forestry.

In 2011 2,787,433 MZN was paid for Zambezi Delta agro-forestry.

Detailed breakdown of agro-forestry payments to farmers is in appendix 2.

REDD+

2009 household payments to families

Family Payments		
Chicare	Number of families	Value (MZN)
Mbulaua	159	37,256.88
Pavua	82	19,213.92
Mucinha Nova	98	22,963.36
Mutiambamba	135	31,633.20
Munhanganha	79	18,511.28
BueMaria	39	9,138.48
Nhambita	85	19,917.20

Vunduzi	35	8,201.20
Pungue	256	59,985.92
Mucinha Velha	135	31,633.20
Total	1,103	258,454.64

2008 and 2009 firebreak and patrolling payments for community areas:

Chicare service payments	Group leader	Patrolling	Fire breaks and early burning	Total (MZN)
Vunduze	Johane Roberto Ernesto	20,679	10,339	31,018
Mudoda/Mbulaua	Zito Fole Cuta	78,103	39,051	117,154
Mucinha/Munhanganha/Nhambita	Alexandre Joaquim	12,725	6,363	19,088
Mutiambamba	Alexandre Joaquim	2,226	1,113	3,339
Mucinha/Nhambita	Geremias Mbojesse	19,776	9,888	29,664
Nhambita Envirotrade	Neva Florindo	18,649	9,324	27,973
Nhambita/BueMaria	Zondai Languissoni	17,690	8,845	26,535
Mudoda/Mbulaua-Serra	Mario Chimuaa	11,507	5,753	17,260
		181,355	90,677	272,032

The 2008 and 2009 community association payments for REDD were 179,005 MZN.

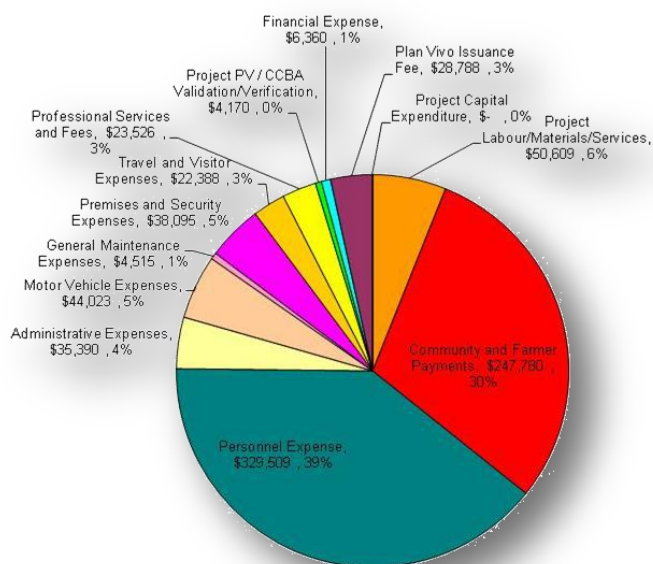
8. Ongoing Community Participation

The main concern of producers as reported in the minutes were payments and monitoring concerns. One interesting suggestion the farmers made was that the farmers should have their payments distributed evenly rather than front loaded with 35% in the first year. This suggestion appears to stem from a combination of reducing confusion about how much a farmer (or community) is owed, so they do not feel cheated, and reducing system failure if a farmer does not plan after the first year. While this cannot be adopted for those contracts already signed, it could be considered in the future.

A summary of meetings held is in appendix 3.

9. Breakdown of Operational Costs

October 2010 through September 2011



Disposable income paid into the local communities of USD \$627,898 (includes PES payments and personnel payments) was 179% of total carbon offset sales from the project during the 12-month period

Type of expenditure	USD	Contribution from sales of Plan Vivo Certificates (USD)	Contribution from other income (USD) Envirotrade Subsidy
Project Labour/Materials/Services	50,609	21,248	29,361
Community and Farmer Payments ¹³	247,780	104,028	143,752
Personnel Expense	329,509	138,342	191,167
Administrative Expenses	35,390	14,858	20,532
Motor Vehicle Expenses	44,023	18,483	25,540
General Maintenance Expenses	4,515	1,896	2,619
Premises and Security Expenses	38,095	15,994	22,101
Travel and Visitor Expenses	22,388	9,399	12,989
Professional Services and Fees	23,526	9,877	13,649
Project PV / CCBA Validation/Verification	4,170	1,751	2,419
Financial Expense	6,360	2,670	3,690
Plan Vivo Issuance Fee	28,788	12,086	16,701
Total Project Expenditure	\$835,153	350,632	484,521

Pictures acknowledgement: Christina Nordfeldt, Antalis

¹³ REDD payments occurred after this period, so this does not include those.

Appendix 1: Monitoring results for new plan vivos

No new contracts this year, allocations of new sales made to previous year's Plan Vivos.

Appendix 2: Monitoring results for continuing plan vivos

Separate attachment for Zambezi Delta and Gorongosa sub projects. Please request a copy of the attachment from the Plan Vivo Foundation.



Appendix 3: Summary of community meetings of the Gorongosa project site

Date	Reasons for the Meeting	Subject Discussed	People Present	Location	Conclusion	Recommendations
13/08/11	Beginning of first monitoring 2011/2012	Cleaning plants, retacha, payments and burning	39	EPC Mbulaua	Producers still need to practice the materials because they seem to be forgetting what they have learnt	Cleaning to facilitate counting of plants and avoid burning plants.
15/08/11	Beginning of first monitoring 2011/2012	Cleaning, burning, plant mortality, abandonment of the systems.	26	EP1 Mutiambamba	They need more talks about the survival percentages and discounts on annual payments.	Check what the contract says for each system, cleaning, refer to Community technician about any doubts.
15/08/11	Beginning of first monitoring 2011/2012	Cleaning, replacement of plants, abandoning plants in local distribution areas after receiving, payment plans.	21	Committee headquarters Nhambita	Major concern of producers payments in relation to other activities involved in the Plan Vivo	Cleaning, put marks on small plants to facilitate the identification, accompany technician in the day of monitoring to farm the day agreed.
15/08/11	Beginning of first monitoring 2011/2012	Percentage of survival, cleaning, replacement of plants, payments	35	Pavua	The determination of 85% survival of plants that create panic, producers need a very detailed explanation	Cleaning plants, make the reposition of plants, do not allow fire to enter the field.
16/08/11	Beginning of first monitoring 2011/2012	Suspension of payments due to mortality, cleaning, replacement, payment	28	Bairro 8	Many producers need new mapping and people who are not in the Plan Vivo	Cleaning, doing Replacements, accompany Technician on date of monitoring.
17/08/11	Beginning of first monitoring 2011/2012	Cleaning, payment, replacement of plants	13	Ernesto	The producers are upset with the delay of payment, they lack of attention explained by technicians	Attend their queries before payment to avoid misunderstandings, cleaning, putting marks on small plants.
18/08/11	Beginning of first monitoring 2011/2012	Clean, payment plans and family payments, retancha	14	Mucinha Nova	Many systems are abandoned due to lack of payment caused by lack of care for plants	Cleaning, replace plants, accompany technician in monitoring, defend fires against the farms.
19/08/11	Beginning of first monitoring 2011/2012	Cleaning, payment of families and farms, replacement of plants	15	Pungue	For upcoming payments should be shared equally to all years, after people receive their first payment abandon the system because the amount is bigger, producers complain about the lack of payment of systems like mango and cashew orchards because many die	Cleaning, replace dead plants, accompany the Technician in monitoring at the agreed date.
21/08/11	Beginning of first monitoring 2011/2012	Clean, distribution plant, replacement, uncontrolled fires	23	Chiro	We conclude that many or almost all producers did not receive <i>Faidherbia</i> plants in nurseries due to lack of transport and loading and ask for the new mapping	Create conditions to transport plants from nursery, cleaning, protect plants against fires.
August 2011	Why did Chithunco community not plant trees	Tree collection from technician's house Community had enough trees.	Alastair MacCrimmon-Sofala Project Manager Jorge Abel Gwenzi -	Chithunco	Will not close the tree planting programme but will monitoring the community's commitment closely.	The community are going to have one more chance to prove they are interested the traditional leaders will provide more support.



Date	Reasons for the Meeting	Subject Discussed	People Present	Location	Conclusion	Recommendations
		More contracts desired by the community	ZD Database Administrator Samuel Germano Lucas - ZD Agro-forestry Technician Felipe F. Jossias Muiambo- ZD Agro-Forestry Technician Chithunco Communiy Technicians – Joao Viriato Nhangua Regulo Chithunco Chithunco producers			
	Contradictions in Guma Community between Regulo and community Technician Alberto Tuboi.	The regulo wants to remove the technician from his position and his responsibility as president of the natural resource committee The regulo accused the project of poor communication on the issue. The regulo had previously sent a verbal message that the issue was the solved. The Technician in question was Alberto Tuboi, he was accused by theregulo of receiving more money than him, however he was abiding by the rules of the project.	Jorge Abel Gwenzi - ZD Database Administrator Felipe F. Jossias - ZD Agro-forestry Technician Sr. Luciasse – C.I.D Inhaminga	Tribunal Jurdicial de Cheringoma	Aristides Muhate, Enviortrade mangaer, to follow up the issue with written documentation for the C.I.d	Document the outcome of messages passed on n the community
August 2011	Behaviour of one of the	Community leaders are	Alastair	Gunma	AMcC said the community must make a final	Community must be prompt in their



Date	Reasons for the Meeting	Subject Discussed	People Present	Location	Conclusion	Recommendations
	producer during carbon credits payments and community decision towards one the community technicians, Alberto Tuboi Candema	<p>concerned that the technician is not working properly.</p> <p>Alastair MacCrimmon stated he had performed well and according to the rules of the project in his audit.</p> <p>He was accused of taking the trees to establish his system before others in the community.</p>	<p>MacCrimmon-Sofala Project Manager</p> <p>Jorge Abel Gwenzi - ZD Database Administrator</p> <p>Samuel Germano Lucas - ZD Agro-forestry Technician</p> <p>Guma Community Technicians – Manuel Jose Maponge</p> <p>Chico Tuboi Candema</p> <p>Regulo Guma</p> <p>Guma Community Leaders</p>		<p>decision about the technician and inform the project sooner rather than later. He also asked whether unacceptable language by one of the community members against the technician had been resolved in the community. The leaders promised to address this issue internally</p>	decision to reduce uncertainty.
August 2011	Payments of discounted material to Guma Nursery	Nursery stated that they were not told that the materials bought by the project on their behalf would be discounted from their payments.	<p>Alastair MacCrimmon-Sofala Project Manager</p> <p>Jorge Abel Gwenzi - ZD Database Administrator</p> <p>Samuel Germano Lucas - ZD Agro-forestry Technician</p> <p>Felipe F. Jossias Muiambo- ZD Agro-</p>		<p>AMcC stated it was clear in the contract, and all of the other nurseries worked well on this basis.</p> <p>The contract was terminated the day of the meeting.</p>	Don't work with people who fight the project.



Date	Reasons for the Meeting	Subject Discussed	People Present	Location	Conclusion	Recommendations
			Forestry Technician Guma Private Nursery Workers			
August 2011	Payments of discounted material to Guma Nursery	Envirotrade was reported to the DPA for Cheringoma District on the basis that they verbally stated that the Envirotrade provided materials would not be discounted from the final payment, even if it was in the contract.	Jorge Abel Gwenzi - ZD Database Administrator Sr. Abidala – DPA Cheringoma District Guma Private Nursery Workers	Guma Nursery	It was combined that they will be paid the amount on the 19 th of August 2011	Ensure the nurseries are completely clear that the materials will be discounted and provide evidence beyond the contract that they have been informed.
	Mponda community not satisfied about the carbon credits payments	<p>Delay in payments</p> <p>Payments not as high as other communities</p> <p>Volume of work created a delay in making the paysheet.</p> <p>Payments are based on the performance of the farmer, not the not only the size of the system.</p> <p>Now producers are in their 2 or 3rd year their payments are not as high as they were in the first year like in other communities.</p>	<p>Alastair MacCrimmon-Sofala Project Manager</p> <p>Jorge Abel Gwenzi - ZD Database Administrator</p> <p>Samuel Germano Lucas - ZD Agro-forestry Technician</p> <p>Mponda Community Technicians – Lucas Antonio Charles and Timoteo Mafala Raice</p> <p>Regulo Mponda</p> <p>Mponda producers</p>		<p>The community suggested that if there are inconveniences on the side of the project they need to be informed so that they will be aware of what is going on:</p> <p>Mr A. MacCrimmon thanked all who were at the meeting and for raising such issue that were pending.</p>	Give the community a copy of the paysheet so they can see how their payments split out to other systems (and can compare to other communities)..

