2008 Plan Vivo Annual Report

N'hambita Community Carbon Project - Envirotrade

1. Key Events, Developments and Challenges	**1. 1 Key event** ï The region experienced a significant wild-fire which raged across two provinces (Manica and Sofala). On the 1st of September 2008 the fire destroyed 99 homesteads and 43 people were killed in the fire. In the Chicale Regulado 70 houses were burned and one person was killed. A second fire unplanned fire started not far from our camp at one of the communityôs memberôs houses when she burned some litter and it got out of control. It burned a few hectares around the camp, but we could stop fire close to camp by back-burning against the fire-breaks. It was an area that didnôt burned for two years. (**See Appendix A**) **1.2. Key Developments –** **1.2.a. Expansion to Mucombeze** Envirotrade has expanded into other communities in Sofala Province; one of these is immediately adjacent to the Chicare Regulado south of the Pungue river, called Mucombeze. This is the second Regulado in the Gorongosa complex to embrace the Carbon Livelihoods programme. (**See attached map – Appendix B**) **1.2.b. Expansion to Cheringoma** The expansion has also taken place north of Mt Gorongosa in the Zambezi River delta in the Cheringoma and Marromeu areas. (**See attached project document – Appendix C**) These new communities fall within Sofala Province and the Gorongosa/Marromeu conservation complex. (**See attached map – Appendix C**) **1.2.c. Mozambique Carbon Livelihoods Fund** The stakeholders in the projects have launched the Mozambique Carbon Livelihoods Fund. The Mozambique Carbon Livelihoods Trust (MCLT) was launched in 2007 to ensure that the community and individual farmer proceeds of carbon offset sales from Envirotrade Carbon Livelihoods projects in Mozambique were safeguarded. The Fund will also be known in Mozambique as the ñ'Fundacao Carbono Para Vida". Approximately one third of the proceeds of any carbon sale go directly to
Appendix A – Fire	
Appendix B – Project Map (Chicare and Mucombeze)	
Appendix C – Zambezi Project Map	

Appendix D – Funding relationships	this fund and are paid out to individual farmers over seven years, to the community trust funds annually and in other payments for forest management and conservation. A further third of the revenue, that which will be used for onsite operational delivery will also be administered by the Trust The MCLT board is made up of stakeholders - a representative of each elected community association participating in a project, Envirotrade Lda and civil society nominees - and is responsible for ensuring that the funds are properly managed and payments made. At the outset this will mean a representative of the Nhambita Community Association and later representatives of other community associations who sign MOUôs with the Carbon Livelihoods programme in Mozambique. A Beira based auditing company, Contabil, are responsible for the day to day administration of the fund. The Trust will publish an annual report and its transactions will be monitored by Plan Vivo as part of its ongoing monitoring of standards and requirements for compliance. The MCLT is an important component of the Plan Vivo system and ensures that Payments for Environmental Services (PES) take place in an environment in which future payments to participants are protected and guaranteed. The Carbon Livelihoods Trust will work closely with associated community associations to ensure that the sustainable livelihoods are built and that far reaching land-use change takes place in target communities in and around protected areas. The projects are currently negotiating with the Chissano Foundation to represent Civil Society on the Board. (**See Appendix D – Funding relationships**) **1.3. Key Challenges for the Project** **1.3a. Gorongosa** ï a. A lack of human capital reflected in weak and inexperienced leadership in community is a chief challenge. b. Dependency and a culture of entitlement created by the years of civil war and the breakdown of self reliance during the period spent as refugees is a significant challenge. c. Some of the areas we need to get boreholes in place in order to get the small micro nurseries 100% functional.

	d. The role of consultants and their approach to their studies or work is something that can threaten the project. The project management needs to look closely at the role of individuals whose lack of professionalism or incompetence can jeopardise the future of the project. Such careless attitudes could cost the community money and put unnecessary pressure on the project team. e. We need to do more work in the next season to improve the environmental education in schools, the changes already experienced and observed in some of the schools, could bring a big change in the attitude of the communities. f. Perhaps the single most negative impact and challenge we have faced, is the fact that the Carr Foundation of the Gorongosa National Park relocated their entire workforce into the community area. This was done with no environmental impact assessment or any other study on the impact on the community and its well being. This has acerbated the problems associated with the failure of the Carr Foundation to recruit widely in the community and their reliance on bringing people and their families from outside the Gorongosa area. g. Now that almost all the mine fields have been cleared, the new tar roads rebuilt and with the creation of many new posts in the Gorongosa National Park this has seen even more of the old families back that use to stay here in the time before 1968, when they used to plant cont on a large scale in Mucombeze on the south of the Pungue river, opposite the old cotton factory at Bua Maria. There use to be more job opportunities during the time of the cotton factory, but with the close of it and the war later, many families moved away. They are coming back with the new expansion of the park and the families are developing new agricultural land (especially in Mucombeze). The challenge is to get the families to plan with Plan Vivo to rather get the old fields or old mashambas back into the system for the requirements of their families. **1.3b. Zambezi** a. Water in the Chirimadzi and the private nursery at Caia has reached high levels of salinity; this is associated with the drop of the water table and gets worse as the dry period progresses. This has a serious effect on the trees and certain species are unable to withstand the conditions. It may be necessary to re-locate the nurseries to alternative areas. b. The privatisation of nurseries in certain communities is being held off until the boreholes have been provided as the lack of water in the target areas makes it impossible to develop. c. The lack of development capital for the purchase of vehicles, equipment, and camp infrastructure and staff recruitment has hampered the progress of the ZCLP.

	d. The fact that communities live in areas adjoining either logging or hunting concessions implies that they do not have the area of ñfreeòforest to manage or do fire control in. This aspect of income will have to be derived from adopting forest within the hunting concessions.
2. Activities **Appendix E – Training Manual** **Appendix F – Nurseries**	**1. Agroforestry** **1.1. Gorongosa** **1.1.1. Training :** 1.1.1.1. **Community Technicians.** During this period, 4 training sections were held for 16 community agro forestry technicians on Plan Vivo, including technical specifications for each system, monitoring process, mapping and participatory methods. These training sections take place every year before the technicians starting to do their planning, mapping, distributing of plants, and undertake the planting and monitoring. It helps to prepare, update technicians, and improve their performance. (**Appendix E – Training Manual**) 1.1.1.2. **Micro Nurseries.** Another 21 members of 5 micro-nursery business groups were trained on nursery management and seedling production. It included exchange visits to the existent nurseries. (**see appendix F – Nurseries**) 1.1.2. **Nurseries :** 1.1.2.1. During the 2007/2008 season, a new approach on the seedling production and nursery management was introduced. Three nurseries managed by community business groups were established and contracts to produce and supply 100,000 trees between Envirotrade and these groups were signed. Two of the nurseries belong to two association groups and one to a local private farmer. (20% more plants were produced on top of the agreement) The success of this experience motivated the Project Team and the Community Association to transfer the 1st nursery from under Envirotrade management to a association Micro-Enterprise group and establish one more nursery that now belong to another local private business man or community local farmer. 1.1.2.2. During 2007/2008 planting season 227,122 seedlings were produced, 15% were fruit trees. From the amount produced above, 155,644 trees were distributed and planted by farmers. The other were kept for grafting and continued to grow in the nursery. For the new present season of 2008/2009, there is already a

stock of about 190,000 trees in the nursery, from which about 100,000 are Faidherbia. Faidherbia for an intercropping system is the priority for the 2009 planting season. Most of the farmerôs already taking part in the project has a boundary system and they are starting introducing other systems. The technical specification for Faidherbia shows that the carbon stock in it is quite high, therefore the incentives in the form of cash payments to the farmers is also positive in offsetting high opportunity costs of diverting attention away from food production. The farmers are also planting Faidherbia to improve/recover the soil fertility.

1.1.3. **Seed collection and distribution of Seed :**

1.1.3.1. The owners/groups of the micro nurseries collected locally about 100 kg of different indigenous species. Additionally they got 200 Kg of cashew nut, 150 Kg of Faidherbia and 100 Kg of fruit seed including orange, lemon, avocado, mango, and tangerine.

1.1.3.2. In order to promote food security and soil restoration, the project purchased an additional 2 tonnes of pigeon pea-seed and distributed to farmers. The farmers signed a MOU with the project and at the end of the agriculture season; they must return the same quantity of seed they received. The seed recovered will be used next season to expand the area and we will sign new MOUôs with new farmers. Pigeon Pea (*Cajanus cajan)* is an excellent nitrogen fixing shrub that is intercropped with cereal crops such as sorghum and maize. Farmers are reporting yields as high as 500 kgôs of pigeon pea in addition to normal cereal crops.

The crop is important because the plants

- grow under poor soil conditions.

· They are tolerant of dry weather.

· They are a nutritious, high-protein pulse crop. There are other reasons too.

· Leaves can be used for animal feed.

· The fast-growing plants make good shade for other crops.

· Plants are perennial for up to 5 years.

· Woody parts can be used for firewood.

Appendix G – Monitoring Gorongosa

· Water and nutrients from deep in the soil can be caught by its deep taproot.

· Plants can be used along contour barriers for erosion control.

The pigeon pea is a shrub that grows from one to a few meters tall and perhaps a couple meters wide. Most types flower when the days are 11 to 11 1/2 hours long, but varieties responding to both shorter and longer day lengths are available, and some will flower at any time of the year. Usually flowering begins in 120-150 days and seed maturity in 250 days, but these figures can be as early as 60 and 100 days respectively.

1.1.4. Number of Farmers or Producers and Systems Monitored.

1.1.4.1. **Gorongosa** - The first 2008 monitoring process of 1,350 Farmers or Producers with a total of 1,579 Systems, was concluded and data processing is under way. The second monitoring for 2008 will be done in January after the first good rains. The project has reached a stage in Gorongosa were the uptake by farmers of the full range of systems is impressive depending on their requirements. (**See Appendix G – Monitoring Gorongosa**)

1.1.4.2. Currently community technicians are busy mapping new areas to be planted this new season. Some of these new areas belong to new farmers and others to farmers already involved in Plan Vivo who wants to add more systems.

1.1.4.3. An overview of Systems and Producers in the Gorongosa Project

SYSTEMS AND PRODUCERS – GORONGOSA							
Ward	**Year**	**Number of Systems**	**Number of Producers**	**Ward**	**Year**	**Number of Systems**	**Number of Producers**
	Chicare						
Bue-Maria	**2004 - 2005**			**Mutiambamba**	**2004 - 2005**		
	2005 - 2006	37	33		**2005 - 2006**	56	46
	2006 - 2007	12	12		**2006 - 2007**	136	126

	2007 - 2008	43	38		**2007 - 2008**	39	31
	Total	**92**	**83**		**Total**	**231**	**203**
Mbulawa	**2004 - 2005**			**Nhambita**	**2004 - 2005**	33	29
	2005 - 2006	52	42		**2005 - 2006**	64	51
	2006 - 2007	45	40		**2006 - 2007**	40	29
	2007 - 2008	3	3		**2007 - 2008**	30	25
	Total	**100**	**85**		**Total**	**167**	**134**
Mucinhawa Antigo	**2004 - 2005**			**Povua**	**2004 - 2005**		
	2005 - 2006	86	63		**2005 - 2006**	34	20
	2006 - 2007	83	76		**2006 - 2007**	28	24
	2007 - 2008	62	59		**2007 - 2008**	3	3
	Total	**231**	**198**		**Total**	**65**	**47**
Mucinhawa Novo	**2004 - 2005**			**Pungue**	**2004 - 2005**		
	2005 - 2006				**2005 - 2006**	37	31
	2006 - 2007	9	8		**2006 - 2007**	89	78
	2007 - 2008	21	18		**2007 - 2008**	23	18
	Total	**30**	**26**		**Total**	**149**	**127**
Munhanganha	**2004 - 2005**	19	19	**Vunduze**	**2004 - 2005**		
	2005 - 2006	47	41		**2005 - 2006**		
	2006 - 2007	66	62		**2006 - 2007**	11	10
	2007 - 2008	25	25		**2007 - 2008**	1	1
	Total	**157**	**147**		**Total**	**12**	**11**

	Chicare Totals by Year					**1,234**	**1,061**
Chicare	**2004 - 2005**	52	48				
	2005 - 2006	413	327				
	2006 - 2007	519	465				
	2007 - 2008	250	221				
	Total	**1,234**	**1,061**				
	Mucombeze						
Ward	**Year**	**Number of Systems**	**Number of Producers**				
Mucomedze 1	**2004 - 2005**						
	2005 - 2006						
	2006 - 2007						
	2007 - 2008	215	154				
	Total	**215**	**154**				
Mucomedze 2	**2004 - 2005**						
	2005 - 2006						
	2006 - 2007						
	2007 - 2008	168	132				
	Total	**168**	**132**				
Total for Mucomedze		**383**	**286**				

Appendix H – Monitoring Zambezi

	Mucombeze Total by Year			
Ward	**Year**	**Number of Systems**	**Number of Producers**	
	2004 - 2005	**52**	**48**	
	2005 - 2006	**413**	**327**	
	2006 - 2007	**519**	**465**	
	2007 - 2008	**633**	**507**	
Total Number of Systems/Producers		**1,617**	**1,347**	

1.2. Zambezi

1.2.1. Training

1.2.1.1. **Community Technicians -**Five community technicians have been trained during the 1st period of the project and we are now in process to train 10 more technicians.

1.2.2. **Land use systems** -. The land use activities being employed in the ZCLP are currently limited to the Agroforestry systems as per the Plan Vivo standards and technical specifications. Systems used for the 1st season were the Boundary system, Intercropping, Woodlot and Homestead

1.2.3. **Seed collection and distribution of Seed** - the workers from the nurseries collected locally different indigenous species. They also collected seed including orange, lemon, avocado, mango, and tangerine. In order to promote food security and soil restoration, the project purchased pigeon pea-seed and distributed to farmers. The farmers signed a MOU with the project and at the end of the agriculture season; they must return the same quantity of seed they received. The seed recovered will be used

1.2.4. Number of Farmers or Producers and Systems Monitored : The first 2008 monitoring process of 236 Farmers or Producers with a total of 276 systems. **(See Appendix H – Monitoring Zambezi)**

1.2.5. Producers in the Zambezi Project - 2007/08

		GUMA	MPONDA	CHIRIMADZI	CINE	TOTAL
		Ha's	Ha's	Ha's	Ha's	Ha's
BOUNDARY		83.68	95.14	72.13	13.87	**264.82**
INTERCROPPING		1.00	5.63		0.48	**7.11**
WOODLOT			7.39	1	8.38	**16.77**
HOMESTEAD		2.82	6.46			**9.26**
TOTAL	**Ha**	**87.48**	**116.34**	**73.13**	**22.73**	**299.68**
No. FARMERS		**67**	**93**	**60**	**16**	**236**
No. SYSTEMS		**82**	**105**	**62**	**27**	**276**

The above number of farmers reflects that balance after contracts have been suspended.

1.3. **Total Sofala Province Producers and Systems;** The total Farmers or Producers for Sofala Province monitored will then be; 1,350 + 236 = 1,586 Farmers or Producers and 1,579 + 276 = 1,855 Systems. (See Appendix E ï Monitoring Reports)

Appendix I – Forest Management Plan **Appendix J - Monitoring**	**2. Forest and fire Management.** **2.1. Gorongosa** 2.1.1. **Training** During the same period 40 community members involved on the ñcommunity conservation areasò forest and fire management, were submitted to training on fire management (fire brakes and early burning) and patrolling. 2.1.2. **Forest and fire management.** 11 ñcommunity conservation areasò were chosen and mapped by communities in collaboration with Community Association and community technicians. Detailed consultations to community leaders and community members been done. The ñcommunity conservation areasò areas are blocks from about 500 ha to about 6,000ha. The total area set aside by the community comes to about 14,395.09 ha. These areas were submitted to early burning between March to July 2008 and are under management and control by different groups of 5 to 10 people per group. The project also mapped a total of about 776.08 ha from individual community members who have land of their own. It will fall under ñindividual conservation areas.ò Consultations been done with the individuals and they did the necessary arrangements and precautions. For this season they all decided to do early burning to avoid hot burning that could happen during hot and dry months in September and October. We all considered it will the best way to do for the next season or two. Some of the areas they did fire break where we planned not to do early burnings and also to protect the early burned areas. By doing early burning in some areas, it will help to avoid disaster, while the communities still getting use to do proper fire management. 2.1.3. **Forest Management Plan**: This has been put into place (**see appendix I**) that contains details of fires protection strategies and details of the management and other interventions required. The Implementation will be monitored by the University of Eduardo Mondlane **(see details in appendix J**) ñAreas of Use and With Cultural And Historic Importanceò - The Community Associations of the Project Area have resolved to apply to the Provincial Government for the designation of areas selected through community consultation and consensus in terms of this legislation. The proposal has been formulated to: • Preserve all historical and cultural forests in the community; • Preserve areas for harvesting of NTFPôs in particular medicinal plants and edible caterpillars; and • Bringing added value to the designated areas through economic activities that are based on sustainable use

Appendix K – Letter of Recognition **Appendix L – Minutes and Attendance of Meetings** **(Appendix M – Maps of Project and Forest Reserve areas)**	of resources such as eco-tourism activities, carbon offset based income, and sustainable use of timber and not-timber products. 2.1.4. **Letter of Agreement or Recognition from the Provincial Authorities**: The project is drafting a proposal in terms of the above legislation for submission to provincial governor requesting the designated areas to be declared as Area of Use and With Cultural and Historic Importance. According to the Forest and Wildlife Law the proposal include an official application on the behalf of the community by the Community Associations with arguments setting out the social-cultural and historic importance of specific forest areas, rules and uses, and the area delimitation. It is anticipated that this will be granted as it enjoys the support of the local Administrator and the Department of Forestry. **(Appendix K – Letter of Recognition)** 2.1.5. **Second Phase of Consultation:** All leaders and stakeholders at the community meeting agreed to discuss these issues with their communities and define ñconservation areasòon a ward by ward basis for each chieftaincy. Community meetings were held by community leaders and Community Association in all wards. On these meetings the community of each ward suggested the blocks members of the community were chosen to work with community technicians during mapping process. (**Appendix L – Minutes and Attendance of Meetings**) 2.1.6. **Mapping and Identification of Areas**: The people identified at each of the ward meetings participated in the mapping and identification of areas. Areas were identified according to the criteria agreed upon in the meetings and included the requirements that all areas be free of human habitation or agricultural activity. These maps are appended to the document. **(Appendix M – Maps of Project and Forest Reserve areas)** 2.1.7. **Management Strategy**: The Community Association will coordinate the management of these areas in collaboration with community leaders and other related stakeholders. The Community Association has subcontracted people close to each area that will be involved in all stages or management activities including fire management, patrolling and reforestation. The number of people will be decided according with to the size of the block and will be submitted to training and as much as possible professionalize the groups without, however, exclude participation of other community members. For the 2008 season 25 community members were sub-contracted after being chosen by the community of each ward. They were involved on the firebreaks cleaning, early burning and patrolling activities.

BLOCK	NO. PEOPLE	NAMES
A	4	Fabiao Rale, Lucas Fabiao, Manuel Tores, and Adriano Caetano
B	7	Pedro Mateus, Jovaldo Joaquim, Antonio Jairosse, Vicente Inacio, Paulino Augusto, Chico Paulino, and Alberto Luis
C	3	Felix Fernando, Paulo Manuel Jeremias, and Moises Saimone
D	3	Luis Conde Baera, Tuisse Saene, and Paulo Novas
E	5	Sabado Joaquim, Victor Joaquim, Antonio Ussene, Zondane Languissone, and Castro Jose
F	3	Nelson Francisco, Bernardo Zacarias, and Lucas Joao
Total	**25**	

2.1.

he activity plan lists the activities necessary for the conservation and sustainable management of the project area. It consists of the following elements:

- A list of activities with estimates of time inputs for the protection of woodland in the project area.
- A list of activities to protect and restore stocks of carbon in other woodland areas under the control of the community (to minimise the risk of displacement of activities that result in woodland degradation to areas outside the project area).
- An estimate of the cost of implementing the project activities
- Estimates of any income from forest products or other outputs (excluding carbon).
- A fire management plan.

2.1.9. Identification of Areas and Description: In the **Chicare Regulado a** total of 10,492.48 ha representing 6 blocks were mapped covering all wards of Chicare community (see map-GIS).

Proposed community protected areas : Chicare Regulado

Block	Wards	Size (ha)
A	Vunduze	1,196.61
B	Mbulawa/Mudoda	6,201.81
C	Nhambita/Mucinha	733.02
D	Nhambita/BoeMaria	850.15
E	Mucinha/Munhanganha/Nhambita	713.48
F	Pungue	797.41
	Total	10,492.48

(Appendix N - Examples of Contracts for Forest Conservation)

The areas of protected community forest are an area were determined by the amount of forest without habitation or agricultural production and varies between about 700 ha to 6,000 ha. Six forest blocks were mapped giving a total of 10,295.87 ha. **(Appendix N - Examples of Contracts for Forest Conservation)**

In addition to the community forest areas the Committee has also mapped other areas that fall outside of the core areas as required by the Technical Specification. These include the forest area around Project Offices which comes to 133.41 ha. The community still benefits out of this area, it directly falls under their responsibility. In addition various individuals in the community have agreed to set aside forested areas that fall within their mashamba network for conservation purposes. This area in total is another 776.08 ha. The 12 individual/private blocks varies from between 2 to about 500 ha. The strategy behind the incorporation of these individualsôareas into the plan is to encourage farmers to protect the forest adjacent to their crop lands or home and contribute to sustainable resource management. By involving the individuals with their small blocks of land it is hoped they will begin to realize the benefit and incentives of their forest, this will minimize the possibility that they will sell the land for a short term benefit to charcoal burners. The total area put aside by individual/private groups comes to 776.08 ha.

2.1.10. Areas mapped for individual and small private groups: 776.08 ha.

Chicare Individuals Protected areas			
Nome	Area (ha)	Perimetro (m)	Zona
Castiano	22.14	1,894.03	Pavua
Serra	494.48	9,834.18	Mucinha Velho
Envirotrade camp area	133.41	5,409.76	N'hambita
Telix	4.57	894.96	Pavua
Sakki	30.52	2993.15	Nhambita
Paulo Sozinho	3.71	940.97	Nhambita
Chico Joao	2.45	658.3	Mucinha Velho
Mario Chimuaza	2.18	671.64	Mucinha Velho
Neto Chimuaza	9.14	1,507.83	Mucinha Velho
Costa Pereira	43.20	2,876.38	Pungue
Raimundo	8.80	1.380.59	Nhambita
Luis Felix	4.93	1,098.83	Pungue
Ernesto Seda	16.55	1,915.55	Pungue
Total Forestry for Individuals - Ha and tCO2	776.08	30,695.58	
Total Forestry for Chicare - Ha and tCO2	**11,268.56**		

The community are still looking at other areas that possibly could be come part of the protected area.

2.2. Mucombeze

2.2.1. Identification of Areas and Description: Meetings were also held with the Mucombeze community and a similar programme has been undertaken. The Community Association met and has embarked on a programme of consultation and mapping. The Community Association in collaboration with Envirotrade already mapped the first two blocks and started to protect the area in the 2008 season.

2.2.2. Mucombeze Community Areas: In the **Mucombeze Regulado a** total of 4,099.22 ha representing 2 blocks.

Comunidade de Mucombeze		
Description	**Area**	**Perimeter**
	(ha)	**(m)**
Area Conservacao 1	**3,105.44**	**12,331.77**
Area Conservacao 2	**993.78**	**7,665.19**
Total Forestry for Mucombeze - Ha	**4,099.22**	

2.2.3. Management Strategy: The Community Association will coordinate the management of these areas in collaboration with community leaders and other related stakeholders. The Community Association has subcontracted people close to each area that will be involved in all stages or management activities including fire management, patrolling and reforestation. The number of people will be decided according with to the size of the block and will be submitted to training and as much as possible professionalize the groups without, however, exclude participation of other community members. For the 2008 season 12 community members were sub-contracted after being chosen by the community of each ward. They were involved on the firebreaks cleaning, early burning and patrolling activities.

Appendix Fire Plan

BLOCK	NO. PEOPLE	NAMES
1	8	Zacarias Davide, Filipe Joao, Ambirio Mateus, Januario Alberto, Castigo Manhepo, Jorge Sitole, Jose Carlos and Madjimba Mapanguisane.
2	4	Americo Moises, Marcos Meia, Jaime Luis and Tome Luis.
Total	**12**	

2.2.

plan: Is the same as for the Chicare Community and according each area mapped. Therefore the activity plan covers the whole Gorongosa area.

2.3. **Total Gorongosa** :

2.3.1. Below is the total number of hectares proposed and now placed under protection in the Gorongosa area.

Total Forestry management for Gorongosa	15,367.78 **ha**

Gorongosa = Comunidade de Chicare - N'hambita + Mucombeze

Year and Season	Ha / Season	tCO2 / Ha / Year Over 10 Years	Total tCO2 for Forest Managedment for 10 Years and / Year over 10 Years	Date Sold	Buyer	tCO2 Brought over for Dividing	Total tCO2 Sold To Each Buyer From Forestry	tCO2 Allocated / Area for Forestry	tCO2 Remain In Stock
							tCO2		
									25.00
Year 1 - 2005 to 2006	5,000.00	7.33	36,650.00	02/12/2005	CAA - 1	36,650.00	20,000.00	20,000.00	16,650.00
				01/02/2006	IIED	16,650.00	892.80	892.80	15,757.20
							20,892.80		**15,757.20**
Year 2 - 2006 to 2007	5,000.00	7.33	36,650.00	28/11/2006	CAA - 2	52,407.20	24,000.00	24,000.00	28,407.20
				19/01/2007	Graham Fraser	28,407.20	1.60	1.60	28,405.60
				25/01/2007	Robert Hartley	28,405.60	3.20	3.20	28,402.40
				09/02/2007	John Greiner	28,402.40	2.40	2.40	28,400.00
				01/03/2007	Man Group	28,400.00	5,600.00	5,600.00	22,800.00
				07/05/2007	A. Schurenburger	22,800.00	6.40	6.40	22,793.60
				20/06/2007	Zero Mission	22,793.60	10,833.60	10,833.60	11,960.00
				25/06/2007	Live Earth	11,960.00	2,400.00	2,400.00	9,560.00
				18/07/2007	Amy Power	9,560.00	70.40	70.40	9,489.60

							42,917.60		**9,489.60**
Year 3 - 2007 to 2008	15,367.78	7.33	112,645.83	18/12/2007	David Michaelson	122,135.43	5.60	5.60	122,129.83
				01/01/2008	Environmental Media Association	122,129.83	3,760.00	3,760.00	118,369.83
				21/01/2008	Man Group	118,369.83	6,793.60	6,793.60	111,576.23
				01/03/2008	Global Cool	111,576.23	800.00	800.00	110,776.23
				27/06/2008	Zero Mission	110,776.23	3,152.00	3,152.00	107,624.23
				31/07/2008	U of E	107,624.23	46.40	46.40	107,577.83
				31/07/2008	CAA3	107,577.83	7,046.40	7,046.40	100,531.43
							21,604.00		**100,531.43**
Year 4 - 2008 to 2009	15,367.78	7.33		01/09/2008	Man Group	100,531.43	826.40	826.40	99,705.03
				01/11/2008	University of Cape Town	99,705.03	8.80	8.80	99,696.23
				15/11/2008	Zero Mission	99,696.23	9,012.80	9,012.80	90,683.43
				21/11/2008	E. Value	90,683.43	400.00	400.00	90,283.43
				01/12/2008	Portal Universe	90,283.43	400.00	400.00	89,883.43
				18/12/2008	Zero Mission-MaxHamburger	89,883.43	16,472.00	16,472.00	73,411.43
							27,120.00		**73,411.43**

In the months to follow, more consultations will take place and there are more areas that will be mapped and could be added to fall under the protected areas set aside by the communities.

3. Fire and Forest Management :

3.1. Gorongosa :

3.1.1. Run-away fires: After the province run-away fire mentioned in the 1.1. Key Event; the district government

	approached Envirotrade and asked if Envirotrade could train farmers in other communities on early burning. The communities utilised remaining grass from the early burning managed areas under community control to rebuild their burned houses. **(See Appendix Forest Management Plan for Fire Management Strategies)** 3.1.2. **Fire Education**: By showing films, we did environment education about bush fire and fire management. It was part of a bush fire campaign on 7 settlements of the Chicare Regulado; where about 2 000 people participated in the fire awareness programme and viewed the training material and attended the talks given by the project on fires management. . 3.1.3. **Inventory;** In collaboration between the community, FAO, and Envirotrade, a forest inventory was done that covers the whole Chicare area. It was divided in 50 clusters and was conducted by ñMiombo Consultoresò, a Maputo based consultancy **3.2. Zambezi** 3.2.1. Presently there is no Forest and Fire Management programme in place ï this is under development for 2009/10.

Total Sofala Province (

Gorongosa + Zambezi) Agroforestry/Forestry tCO2 - 2004 To 2008

	TCO2 PRODUCED FROM AGROFORESTRY AND FORESTRY					
	Total Sofala Province				Sofala Province	
	Agroforestry		Forestmangement			
Area Description	Total TCO2 Produced from Agroforestry / Year		Total TCO2 Produced from Forestry / Year		Full Period and / Year for Total Agroforestry + Forestry	
Sofala Province	Year	TCO2	Year	% TCO2	Year	TCO2
				100.00%		
Total Gorongosa + Zambezia	2004 - 2005	10,226.00	2004 - 2005	0.00	2004 - 2005	10,226.00
	2005 - 2006	18,747.00	2005 - 2006	36,650.00	2005 - 2006	55,397.00
	2006 - 2007	29,555.00	2006 - 2007	36,650.00	2006 - 2007	66,205.00
	2007 - 2008	64,187.29	2007 - 2008	112,645.83	2007 - 2008	176,833.12
	2008 - 2009		2008 - 2009	0.00	2008 - 2009	0.00
Total Sofala		122,715.29		185,945.83		308,661.12

4. Sales

All sales Source	Client	Year	T CO2	$ / t CO2*	Total $*
Gorongosa	Future Forest	2004	9,006.55		
Gorongosa	CAA1	02/12/2005	25,000		
Gorongosa	IIED	01/02/2006	1,116		
Gorongosa	CAA2	28/11/2006	30,000		
Gorongosa	Graham Fraser	19/01/2007	2		
Gorongosa	Robert Hartley	25/01/2007	4		
Gorongosa	John Greiner	09/02/2007	3		
Gorongosa	Man Group	01/03/2007	7,000		

Gorongosa	A. Schurrenburger	07/05/2007	8			
Gorongosa	Zero Mission	20/06/2007	13,542			
Gorongosa	Live Earth	25/06/2007	3,000			
Gorongosa	Amy Power	18/07/2007	88			
Gorongosa	David Michaelson	18/12/2007	7			
Gorongosa	Environmental Media Association	01/01/2008	4,700.00			
Gorongosa	Man Group	21/01/2008	8,492.00			
Gorongosa	Global Cool	01/03/2008	1,000.00			
Gorongosa	Zero Mission	27/06/2008	3,940.00			
Gorongosa	U of E	31/07/2008	58.00			
Gorongosa	CAA3	31/07/2008	8,808.00			
Gorongosa	Man Group	01/09/2008	1,033.00			
Gorongosa	University of Cape Town	01/11/2008	11			
Gorongosa	Zero Mission	15/11/2008	11,266			
Gorongosa	E.Value	20/11/2008	500			
Gorongosa	Portal Universe	01/12/2008	500			
Gorongosa	Zero Mission Max Hamburger	18/12/2008	20,590			
Total						

* Confidential information has been blanked out of this

FULL BALANCE AGAINST SALES

TOTAL SOFALA PROVINCE - CHICARE + MCUBEZE + ZAMBIZIA AGROFORESTRY + FORESTRY tCO2 - 2004 TO 2009

Area Description	Total TCO2 Produced Chicare Full Period and / Year for Total Agroforestry + Forestry		Total TCO2 Sold Chicare Full Period and / Year for Total Agroforestry + Forestry	Total TCO2 Still Available for Sale Chicare Full Period and / Year for Total Agroforestry + Forestry	Total TCO2 Still Available for Sale Chicare Full Period and / Year for Total Agroforestry + Forestry				
	Year	TCO2	TCO2	TCO2	2004 - 2005 TCO2	2005 - 2006 TCO2	2006 - 2007 TCO2	2007 - 2008 TCO2	2008 - 2009 TCO2
Chicare	2004 - 2005	10,226.00	9,006.55	1,219.45	1,219.45	0.00			
	2005 - 2006	55,397.00	26,116.00	30,500.45		30,500.45	0.00		
	2006 - 2007	66,205.00	53,647.00	43,058.45			43,058.45	0.00	
	2007 - 2008	106,195.54	27,005.00	122,248.99				122,248.99	0.00
	2008 - 2009	0.00	33,900.00	88,348.99					88,348.99
Total Chicare		238,023.54	149,674.55	88,348.99					88,348.99

	Mucombeze		Mucombeze	Mucombeze	Mucombeze				
Area Description	Full Period and / Year for Total Agroforestry + Forestry		Full Period and / Year for Total Agroforestry + Forestry	Full Period and / Year for Total Agroforestry + Forestry	Full Period and / Year for Total Agroforestry + Forestry				
	Year	TCO2	TCO2	TCO2	2004 - 2005	2005 - 2006	2006 - 2007	2007 - 2008	2008 - 2009
					TCO2	TCO2	TCO2	TCO2	TCO2
Mcubeze	2004 - 2005	0.00	0.00	0.00	0.00	0.00			
	2005 - 2006	0.00	0.00	0.00		0.00	0.00		
	2006 - 2007	0.00	0.00	0.00			0.00	0.00	
	2007 - 2008	56,807.51	0.00	56,807.51				56,807.51	0.00
	2008 - 2009	0.00	0.00	56,807.51					56,807.51
Total Mcubeze		56,807.51	0.00	56,807.51					56,807.51

	Gorongosa		Gorongosa	Gorongosa	Gorongosa				
Area Description Gorongosa	Full Period and / Year for Total Agroforestry + Forestry		Full Period and / Year for Total Agroforestry + Forestry	Full Period and / Year for Total Agroforestry + Forestry	Full Period and / Year for Total Agroforestry + Forestry				
	Year	TCO2	TCO2	TCO2	2004 - 2005	2005 - 2006	2006 - 2007	2007 - 2008	2008 - 2009
					TCO2	TCO2	TCO2	TCO2	TCO2
Total N'hambita + Mcubeze	2004 - 2005	10,226.00	9,006.55	1,219.45	1,219.45	0.00			
	2005 - 2006	55,397.00	26,116.00	30,500.45		30,500.45	0.00		
	2006 - 2007	66,205.00	53,647.00	43,058.45			43,058.45	0.00	
	2007 - 2008	163,003.06	27,005.00	179,056.51				179,056.51	0.00
	2008 - 2009	0.00	33,900.00	145,156.51					145,156.51
Total Gorongosa		294,831.06	149,674.55	145,156.51					145,156.51
	Zambezia		Zambezia	Zambezia	Zambezia				

Area Description	Full Period and / Year for Total Agroforestry + Forestry		Full Period and / Year for Total Agroforestry + Forestry	Full Period and / Year for Total Agroforestry + Forestry	Full Period and / Year for Total Agroforestry + Forestry				
	Year	TCO2	TCO2	TCO2	2004 - 2005	2005 - 2006	2006 - 2007	2007 - 2008	2008 - 2009
					TCO2	TCO2	TCO2	TCO2	TCO2
Zambezia	2004 - 2005	0.00	0.00	0.00	0.00	0.00			
	2005 - 2006	0.00	0.00	0.00		0.00	0.00		
	2006 - 2007	0.00	0.00	0.00			0.00	0.00	
	2007 - 2008	13,830.06	0.00	13,830.06				13,830.06	0.00
	2008 - 2009	0.00	0.00	13,830.06					13,830.06
Total Mcubeze		13,830.06	0.00	13,830.06					13,830.06

	Sofala Province		Sofala Province	Sofala Province	Sofala Province				
Area Description Gorongosa	Full Period and / Year for Total Agroforestry + Forestry		Full Period and / Year for Total Agroforestry + Forestry	Full Period and / Year for Total Agroforestry + Forestry	Full Period and / Year for Total Agroforestry + Forestry				
	Year	TCO2	TCO2	TCO2	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
					TCO2	TCO2	TCO2	TCO2	TCO2
Total Gorongosa + Zambezia	2004-2005	10,226.00	9,006.55	1,219.45	1,219.45	0.00			
	2005-2006	55,397.00	26,116.00	30,500.45		30,500.45	0.00		
	2006-2007	66,205.00	53,647.00	43,058.45			43,058.45	0.00	
	2007-2008	176,833.12	27,005.00	192,886.57				192,886.57	0.00
	2008-2009	0.00	33,900.00	158,986.57					158,986.57
Sofala Province		308,661.12	149,674.55	158,986.57					158,986.57

5. Allocation of Sales to Producers

All producers are paid based on inspections and subject to caveats in their contracts. See the attached Planning Tools for a detailed breakdown of how sales are divided and allocated to different stakeholders in the project. (**Appendix – Planning Tools**)

Appendix – Planning Tools

6. Participation and Recruitment

From Rohit Jindal - Impact assessment of the Nhambita Community Carbon Project, Mozambique

ñNot all households have equal access to a payment for environmental services (PES) project. Barriers to participation include tenure insecurity, non-availability of land, high transaction costs, and upfront investments needed to adopt new land use practices (Pagiola *et al.*, 2005; Grieg-Gran *et al.,* 2005). Nhambita project takes care of some of these concerns; for instance, 30 percent of the total carbon payment is provided during the first year itself to help meet the upfront cost of establishing new trees. Nevertheless, there could be additional barriers or factors that affect the participation of a household in the project. Probability of participating in the project can be expressed by: $Pr(P_i=1) = (X_i\beta)$ Where P_i = 1 if household ïôdecides to enroll for an agroforestry contract in the Nhambita project and 0 otherwise. *X* is a matrix of explanatory variables that determine the

household's decision. The possible list of explanatory variables was discerned from review of existing literature on adoption of agroforestry practices in Africa. Nkamleu and Manyong (2005) found gender of the farmer, family size, security of land tenure, and agroecological zone to be significant in Cameroon. Similarly, Franzel (1999) pointed out the positive effect of off-farm income on propensity to adopt agricultural fallows in Kenya and Zambia. In a review of 120 studies on adoption of agroforestry and forestry by smallholders, Pattanayak *et al.* (2003) report five categories of factors that were most significant ï preferences, resource endowments, market incentives, biophysical characteristics, and risk and uncertainty. Based on these studies, we collected data on three kinds of variables: (1) household characteristics (gender of the household head, age of the household head, educational status of the household, and year of migration into the community), (2) resource endowment (household size, number of *machambas*, total *machamba* area), and (3) off-farm income (employment with a micro-enterprise promoted by the Nhambita project, any other permanent job outside the village). We use ordinary least squares (OLS) and the logistic regression (logit)[1] model to measure the marginal effect of each of these explanatory variables on probability of participation in the project (table 4).

When we run OLS on all the explanatory variables described above (column 1), many of them are returned as statistically insignificant, even though the F-test for the overall equation is significant. In contrast to some existing studies on adoption of agroforestry practices, we find that age of the head of the household, education level of the household (in terms of number of literates in the family), number of *machambas*, and access to employment outside the village are insignificant even at 10 percent. Dropping these variables (column 2) further improves the significance level of the remaining factors - gender of the head of the household, household size, total area of different *machambas* owned by a family, year when the family migrated into the Chicale *regulado*, and employment with any micro-enterprise promoted by the Nhambita project. Results and signs of coefficients obtained from OLS (column 2) and from logistic regression (column 3) are fairly consistent.

Interestingly, male headed households (coefficient = -0.09) had a nine percent lower probability of enrolling for agroforestry contracts than female headed households. This is an unexpected result that needs to be explored in more detail by talking to local households. One possible explanation is that due to extensive polygamy in the area (Jindal, 2004), there are several female headed households that find agroforestry contracts an attractive opportunity to earn some cash income, in contrast to male headed households which have other avenues of income, such as selling NTFPs from local forests (Hegde and Bull, 2008).

Although off-farm income in the form of employment outside the village was returned insignificant (column 1), the most strong

[1] The logit model can be represented as $L_i = ln(P_i/1-P_i) = (X_i\beta)$, the dependent variable being log-odds ratio.

determinant of participation was employment with a micro-enterprise (coefficient = 0.21, column 2) promoted by the Nhambita project. Indeed, almost all employees covered in the survey have agroforestry contracts. This could be due to their easy access to project staff that administers agroforestry contracts as well as peer pressure from others who have already enrolled for such contracts. Similar to previous studies on adoption of agroforestry, household size (0.04) and *machamba* area (0.06) were also both positive and significant. Presence of an additional household member helps in taking care of initial labor requirements when a new land use is being adopted. Similarly, larger farm area increases the chances of participating in the project because in enables the household to take some land out of crop production and devote it to additional activities such as growing new trees. Finally, recent migrants to the community had a lower probability of participating than older residents (coefficient = -0.004). This could be due to their lack of familiarity with local community association which often suggests names for inclusion in the project. Group discussion with new migrants confirmed this result when they said that many of them would like to participate in the project but they were lower down on the waiting list.

So what do these results imply regarding participation of the poor in the Nhambita project? Female headed households tend to be poorer than male headed households. Since they constitute a sizeable proportion of all households in the local community (table 1), it appears that poorer households are able to participate in the project. On the other hand, however, households with more resource endowments in terms of farm area and now employment in micro-enterprises, also have a higher probability of picking up agroforestry contracts. Therefore, better off households may also be well placed to access the project.

This seemingly contradictory evidence indicates that the project is equally accessible to both poor and relatively better-off households. In fact, usual barriers to participating in PES projects such as high transaction costs, non-availability of land, and tenure insecurity (Grieg-Gran *et al.*, 2005), do not appear to be relevant here. The project itself pays for most transaction costs including monitoring and supervision of carbon contracts. Similarly, almost all households possess *machambas* as we only encountered one household (recent migrant) that did not have land to farm. It is also important to note that the project has already been extended to about 70 percent of all households in the community. Considering that more than 85 percent of rural households in Sofala province were below the poverty line during the last decade (Simler *et al.*, 2004), we can conclude that there is a good chance that many of the poor households in the community participate in the Nhambita project.ò

Table 4: ***Results of multiple regression explaining factors that determine a household's decision to enroll for agroforestry contracts under the Nhambita project (n=205)***

	(1) COEFFICIENT ESTIMATES BY	**(2) OLS ESTIMATES AFTER EXCLUDING**	**(3) COEFFICIENT ESTIMATES BY LOGISTIC**

	OLS	NON-SIGNIFICANT VARIABLES	REGRESSION MODEL
Male headed household	-0.09 (1.47) *	-0.09 (1.55) *	-0.47 (1.14)
Age of the household head	-0.00 (0.63)	(dropped)	(dropped)
Household size	0.04 (2.40)**	0.04 (3.28) ***	0.29 (3.01)***
Number of literates in the household	0.02 (1.02)	(dropped)	(dropped)
Number of *machambas*	-0.00 (0.11)	(dropped)	(dropped)
Total *machamba* area	0.07 (3.29) ***	0.06 (3.83) ***	0.49 (3.36)***
Year of migration into the community	-0.003(1.37)	-0.004 (1.42)	-0.03 (1.11)
Employment within Nhambita project	0.19 (3.03)***	0.21 (3.20) ***	1.65 (2.82)***
Employment outside the village	-0.05 (0.55)	(dropped)	(dropped)
Constant	7.85 (1.45)	7.93 (1.49) *	53.01 (1.08)
	Prob > F = 0.00	Prob > F = 0.00	Prob > chi2 = 0.00
	R-sq = 0.236	R-sq = 0.229	Pseudo R-sq = 0.240

Notes: Figures in parentheses for columns (1) and (2) are absolute values of t-statistics. For column (3), figures in parentheses report absolute value of z-statistics. Based on 2008 survey among the local households.

* Significant at 10% ** significant at 5%, *** significant at 1%.

Source: Authorõs survey in 2008.

7. Summary of Monitoring Results

Summary of all monitoring reports (**See Appendix - Monitoring Reports**). Attached is a full report with different pages and worksheets. It is for the 2008 to 2009 monitoring period of the Gorongosa projects.

First will be Chicare ï (Nhambita + Mucombeze as Gorongosa) and then follows Cheringoma ï Zambezi.

Appendix - Monitoring Reports

To adequate and improve the quality and correct amount of information, the monitoring form was updated with the community technicians who participated. The practical and the previous field experience of the last few years are starting to help to develop better ways of monitoring. The farmers were also mobilized to participate on the monitoring process by working more closely with the community technicians. Once all the information needed on the monitoring form, the farmer and the technician could sign the form. Meetings with farmers were held to persuade farmers to participate directly on the monitoring process. Both parties are important and crucial to finalise the process.

Monitoring Summary of the Gorongosa Project

Season Planted and Community	Systems	Recebidas	Falta Receber	Monitoria	Mortas	% Percentagem	Por Receber	Area (Ha)
Chicare	1,177	128,693	104,730	71,575	57,118	44.38	162,443	1,174
2004 - 2005	52	4,437	2,623	4,043	394	8.88	3,612	69.11
2005 - 2006	373	39,871	10,564	22,122	17,749	44.52	28,313	399.02
2006 - 2007	503	55,900	59,920	28,789	27,111	48.50	87,031	492.61
2007 - 2008	249	28,485	31,623	16,621	11,864	41.65	43,487	212.91
Mucombeze	399	52,035	48,643	21,764	30,271	58.17	78,914	457.97
2007 - 2008	399	52,035	48,643	21,764	30,271	58.17	78,914	457.97

Grand Total	**1,576**	**180,728**	**153,374**	**93,339**	**87,389**	**48.35**	**241,358**	**1,632**

A summary of the Zambezi project : Zambezi – Cheringoma - First & Second Monitoring Results

Community	**System**	**Area**	**Total trees received**	**Trees planted**	
				First Monitor	**Second Monitor**
Chirimadzi	Boundary	72.13	3,947	3,347	3,307
	Woodlot	1.00		-	
Chirimadzi Total		**73.13**	**3,947**	**3,347**	**3,307**
Cine	Boundary	13.87	1,755	1,400	1,447
	Homestead	-	46	41	
	Intercropping	0.48	245	104	65
	Woodlot	8.38	1,075	1,272	1,221
Cine Total		**22.73**	**3,121**	**2,817**	**2,733**
Guma	Boundary	83.68	7,606	6,656	4,954
	Homestead	2.80	563	623	391
	Intercropping	1.00	187	187	102
Guma Total		**87.48**	**8,356**	**7,466**	**5,447**
Mponda	Boundary	95.14	5,251	4,184	4,995
	Homestead	6.46	301	178	137
	Intercropping	5.63	346	241	238
	Woodlot	7.39	1,887	1,181	1,109

	Cashew Orchard	1.72	111	103	104
Mponda Total		**116.34**	**7,896**	**5,887**	**6,583**
Grand Total		**299.68**	**23,320**	**19,517**	**18,070**

8. Payments to Producers

Appendix of all payments to Producers

All the data for Gorongosa attached ï **Appendix of all payments to Producers.**

Zambezi only planted their first trees the previous season of 2007 to 2008 and is about to receive their first payments based on the monitoring reports.

9. Community Participation in Project Governance

See attached meeting minutes and attendance registers

In order to involve the community in all the activities and they could understand all the steps and procedures, meetings and training sections were held through the year. Before the 2007-2008 plantation seasons, 9 meetings with community leaders and farmers were held on the entire project area. Another 7 more meetings were held before the 2008 monitoring process.

To discuss and define the ñcommunity conservation areas,òEnvirotrade in collaboration with the Community Association held meetings with community leaders and community members in 8 settlements. Seven (7) in the Chicare Regulado and one (1) in the Mucombeze community. During this meetings to define and map the areas. (**See attached meeting minutes and attendance registers**)

10. Social & Environmental Benefits

All co-benefit activities of the project : Gorongosa

1.1 **Micro – Enterprises**: By collaboration directly with the Community Association this part of the programme promotes community business groups or micro-enterprises. A lot of potential and opportunities are already been created through the activities and the presence of the project. These groups are supposed to guaranty the program sustainability by diversifying income, encouraging ownership, adding value to natural resources and environment, and contributing to developing skills. During the last year of the project, more focus been directed to promote community business groups (micro-enterprises). The Community Association are already in process to legalise the 5 private owned or small private nursery groups, a flourishing carpentry, the saw mill, vegetable gardens, and beekeeping.

1.2 **Timber Processing:** The carpentry and saw mill groups are in the process to open their own bank accounts and

	already have simple but effective business management and accounting systems in place. They have taken over estimation and preparation of quotes and are involved in planning of production and orders. All the necessary documents and applications already have been done and they are now waiting for the final document from the office of finance. They are now in the final stage of the process and in short term will have there own bank accounts. **Saw Mill** - Mr. Mouzinho Francisco Kemo (Sessenta) and five associates make up the Timber Association. There are two main activities in this unit. One is to hunt for abandoned timber or dead trees, identify and get the permit from the forestry department as well as harvest timber sustainably. The other activity is the milling of the wood. Timber may then be sold as planked timber or have further value added by conversion to furniture. The unity has from January to October prepared 37.5 cubic meters of timber. In July 2008 the unit acquired a license for sustainable timber exploration. The fuel for the unit is provided by the Project and the salaries of the associates range from 2.900 to 3100MT well above the minimum wage established by the government for this sector. The saw mill employed 67 man-months, producing materials including planks which were mostly sold to the Carpentry Shop. Its biggest costs were licence and transport**.** **Income and Expenses for Saw mill – 01-08-2006 to 31-08-2007** **Income from sales - 233,330.98 MTN** **Expenses:** **Salaries (6) 80,400.00 MTN** **Production 73,248.16 MTN** **Gross Profit 79,682.82 MTN (€ 2,414.63) or ($ 3,187.31)** **Income and Expenses for Saw mill – 01-08-2007 to 31-08-2008** **Income from sales – 264,660.00 MTN** **Expenses:** **Salaries (6) 94,653.00 MTN** **Production 64,507.72 MTN**

	Gross Profit 105,499.78 MTN (€ 3,196.96) or ($ 4,219.99) **<u>Saw Mill Gross Profit over 2 Years from 01-08-2006 to 31-07-2008</u>** **<u>185,182.60 MTN (€ 5,611.59) or ($ 7,407.30)</u>** **Carpentry Association**: The Carpentry Shop initially employed ten people during the EU Project. Community workers, with training and guidance from the timber utilization co-coordinator, carry out the manufacturing of furniture and other wooden products at the carpentry unit. Its output is diverse, the biggest income earners being: shelves, door frames, chairs, windows, beds, tables and a wardrobe. **Income and Expenses for Carpentry – 01-08-2006 to 31-08-2007** **Income from sales 428,619.00 MTN** **Expenses:** **Salaries (10) 116,337.00 MTN** **Materials 279,755.98 MTN** **Gross Profit 32,526.02 MTN (€ 985.64) or ($ 1,301.04)** **Income and Expenses for Carpentry – 01-08-2007 to 31-08-2008** **Income from sales 485,839.40 MTN** **Expenses:** **Salaries (10) 163,507.00 MTN** **Materials 285,150.00 MTN** **Gross Profit 37,182.40 MTN (€ 1,126.74) or ($ 1,487.30)**

Appendix – New School	**Carpentry Gross Profit over 2 Years from 01-08-2006 to 31-07-2008** **69,708.42 MTN (€ 2,112.38) or ($ 2,788.34)** The Carpentry Association now has six (6) full time workers who are employed by the Association, they also hire in assistance for big orders. The salaries of the workers of this unity depend on their production and man hours worked; therefore there is no established wage. The unit produces furniture for the project and other clients. Their production includes tables, chairs, beds, doors, widow frames, beehives, and school tables. Its main clients are the Gorongosa National Park, GTZ, Fundacão Contra a Fome. They can also make furniture for private individuals. The unity also produces the coffins for the community. The cost of coffins is covered with funds from the community fund and members of the community do not have to pay for coffins. This year the unit has already delivered 60 school tables to one of their clients. 1.3 **Community Tourism**: The Community Tourism Group have began building their tourist camp. They did already built an ablution block with 2 toilets, 4 basins and two showers ï this is a permanent structure constructed from bricks. A kitchen/catering area, divided into 4 small units out of a bamboo construction is up and working. Camping sites for 6 groups have been opened and cleared. The tent camp is in process of being constructed. Planning to have 7 tents up under a bamboo construction with each tent will have a kitchen area. The process to get the Community Tourist Group legalised has already started with a licence application. They are already taking tourists at a voluntary basis up to the stage that they are legalised. People who started to make use of the campsite are birders, groups looking for cheaper accommodation. At these stage even groups travels who are travelling up or down from north to south make use of the campsite. With part of their own funds and a loan, they build the camp up to the stage that they could open and start takes tourism. It cost them about 140,000.00 Mtn (5,800.00 USD) to build the camp. They opened at the end September and already had an income for the two months of October and November since they started of over 50,000.00 Mtn (2,000.00 USD). At the present moment the guests are paying in a form of a donation as the site is not yet legally formalized for trade. The Community Tourism Centre started in June 2008. The four members of the Community Tourism group are Cristiano Bechane (electrician and plumber, and former soldier) Raimundo Eduardo (builder) Mensai (interpreter) and Isaac the finance officer.. 1.4 **Maize Mill** - The first Maize Mill in Nhambita Ward was started directly through the presence of the project and also been supported by the Community Association, been bought and is already up and working. They managed to put a percentage of cash down as deposit and the balance they are now paying of over a period of a few months through a micro-credit loan from the funds of the association. The company where they bought the mill from gave them the opportunity. 1.5 **Crafts Shop** - The Community Association and some of the community members are busy planning the building of a

	shop next to the road going into the park to sell crafts, furniture and produce to tourists who travel into visit the Gorongosa National Park. Clearing and site preparation are under way. 1.6 **School Building Programme**: The incomes through Carbon money are also helping the community to develop social infrastructures. In January 2007 was inaugurated the first ñconventionalò school build jointly with Germany Embassy and community. The community contributed with about 3 000 USD and furniture from their community fund and added labour from the community. Currently the Chicare Community Association is currently constructing the second ñcarbon schoolò, Munhamganha School at Boa-Maria ï this is a new school using money earning from carbon sales and a small amount of funds they received from the Gorongosa National Park in tourism revenues. (The funds from Gorongosa National Park are their part of 20% tax revenue they earned.) The location was also one of the sites visited by the team. The community received from the Gorongosa National Park $3.695 and also used $4.950, 00 from the Chicare Community fund for the construction of the school. A contractor was identified based on the populations experience with his work. The contractor is supported by 6 workers from the community. These workers are paid with the money from the ñSchool fundò. The school fund is the result of contributions from the project employees. Each employee contributes Mtn 3,00 (R1.5) per day. The other members of the community that are not employed also contribute by doing other activities on a voluntary basis. These activities include: building such as collecting stones and river sand for the concrete. The Munhanganha School will benefit 166 students of that community. During the construction the planning and responsibility are entirely under the control of the Community Association. The building of the second is already at roof height and the carpenter is now busy with the roof construction. **(Appendix – New School)** Hopefully the 2nd school will be ready early in the new year of 2009, before the school starts. The carpenters will also manufacture all of the school desks/benches. The Community Association are already busy with the first stage of planning of the 3rd school and hopefully they could start with the building process of the school during 2009. 1.7 **Medical Post**: Part of the money from carbon revenues from the Community Fund has been used to help with the building of a Community Medical Post. The Mozambique Government Health Department support the project and community with some of the medicine and they also support with the training of the local recruited staff. During the report period the health post recorded 7,373 visits. The main diseases are malaria and gastric illnesses. 1.8 **Well Improvement**: Wells are under improvement to provide clean water and contribute to reduce diseases like diarrhoea. Two improved wells have been built and are already in use. 1.9 **Fire Management Programme**: The fire program has contributed to minimize the negative impact of hot bush fires on about 15,367.78 ha of forest. Large areas have been placed under fire management and teams are trained and employed through the programme to fight fires and manage its impact through early burning and the clearing of fire-breaks. This has

proved crucial during the recent wild-fires that have swept across the province of Sofala.

1.10 **Environmental Education:** There is also an environment education program. This program has two components: 6 primary schools existent on the project area that includes theoretical and practical lessons about different aspect of natural resource and environment, participatory production of manuals and posters, and tree planting. Community environment education that includes environmental training movie exhibition and training classes.

1.11 **Computer's for Schools:** The Creative Artists Agency Foundation, partners in the Nhambita Community Carbon Project and major supporters of the project through carbon offsetting, have delivered 200 Xolaptops to Nhambita schools as part of the ñOne Laptop per Child Programmeò. The Foundation has equipped the main school with solar power and a sat link to the internet. The donation will transform learning for the Nhambita youth. Three of the existent 6 schools will eventually benefit with 200 laptops donated by CAA.

1.12 **Biofuel:** The Department of Energy has donated a Oil Processing Unit to the Community association and the first oil has been extracted from the Jatropha trial plots. The community are experimenting with the production of soap and candles using the oil. The department has also donated lamps that are being trialled in the community at present.

1.13 **Beekeeping:** Eight bee keepers associations have been set up, trained and equipped by the project. Some 35 bee farmers are involved in this community venture. Bee farmers have abandoned quite a lot of their traditional bee hives (that are unsustainable produced) and have been trained in the use of the Kenya Topbar Hive (manufactured in the community) and equipped with modern equipment to minimise the risk of fire traditionally associated with harvesting of honey. The Bee Keeping Association continues to function in the community and has concentrated on the maintenance of swarms through the dry period.

Bee Hives Delivered to the Chicare Community

	Beehives Received	Swarms	Empty Hives
Nhambita Beekeepers	**143**	**77**	**66**
Munhanganha Beekeepers	**35**	**20**	**15**

BueMaria Beekeepers	**25**	**15**	**10**
Pungwe Beekeepers	**30**	**14**	**16**
GRAND TOTAL	**233**	**126**	**107**

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Combs honey processed by Envirotrade from 1st August 2006 to 31 July 2007

50 kgs - 1st grade capped honey
35 kgs - 2nd grade uncapped honey
130 kgs (estimate) mixed grade honey, for personal disposal
and about 220 kgs from their traditional hives.

This amount is harvest from 01 August 06 to 31 December 2006
Total of about 215 kgs by registered Beekeepers from their top bar hives and harvest from 25 hives as table show below.

SEASON HARVEST	Kg Honey Harvest	Total Hives Harvest With Bee's	Average Kg Honey / Hive Harvest	Total Hives At That Stage	Average Kg Honey Harvest For

					Total Beehives
01 Aug 06 to 31 Dec 06	215.00	25	8.6	43	5

At this stage there are only 2 women involve with the bee keeping, with 10 hives in total. The table below show the current harvest and they will harvest soon in the new season ones the hives get filled up.

SEASON HARVEST	**Kg Honey Harvest**	**Total Hives Harvest With Bee's**	**Average Kg Honey / Hive Harvest from some hives**	**Total Hives At That Stage with Swarms**	**Average Kg Honey Harvest For Most Beehives**
01 Aug 07 to 31 July 08	424.8	59	8.3	126	5.5

1.14 **Vegetable Production**: A vegetable production co-operative has been established in the community involving 12 community members and is equipped with pedal pumps and drip micro-irrigation systems. The members of the co-

operative have been trained in the germination, cultivation and care of a wide range of marketable food crops that are sold to the Gorongosa National Park and in nearby villages and towns. This has been led to 30 individual members of the co-operative investing in their own micro-irrigation systems to begin commercial crop production.

Programs started at Zambezi

1. **Bee Keeping**: To date 64 hives have been placed in three communities and associations have been formed. There is hov requirement for training in the area of hive management and in running the associations.

	No. HIVES	**ASS. MEMBERS**
Mponda	24	6
Chirimadzi	25	9
Guma	15	5

2. **Oil Production:** An opportunity exists for the development of a micro seed oil industry in several communities where sesame is grown ï an interest has been shown by farmers in order to provide a source of cooking oil for sale to the locals and further a field. Hand operated oil presses are available and will be introduced in the new growing season.

11. Breakdown of Operational Costs

Spreadsheet with complete breakdown of all operational costs connected to the project is attached as **Appendix - Finances**.

Appendix - Finances

12. Improvements and Future Development

1. **Database Development**: We need to highlight the fact that at the 1st project in Gorongosa or Chicare Community, we still used our normal excel spreadsheets to record all our farmers. We hoped that the ECCM would have designed and finalised the Database at an earlier stage. When we started our 2nd project in Cheringoma in the Zambezi, we started to look at a better Internal Management Information System Tool using Excel (Tables). The result of this gives us different layouts. The main and important objective is to have a uniformed system through all our projects. Envirotrade and Plan Vivo did

Attached Monitoring Brief **Africa Forum Report** **CNC Report**	spend money paying somebody designing a proper database. At this stage there are still errors with the database. The failure to deliver the data base and reconcile the data capture is a major impediment to Verification. 2. **Link with University of Eduardo Mondlane for inspections :** The project is signing an MOU with the University of Eduardo Mondlane to undertake annual independent inspections of the Forest Management Programme (see attached Gorongosa Forest Management Plan) This is an important advance in the good governance of the project and reduces dependence on costly support from overseas based institutions. (**Attached Monitoring Brief**) 3. **Link with Chissano Foundation:** Envirotrade through its parent company has signed an MOU with the Africa Forum and the Chissano Foundation. These organisations are going to become involved in the roll out of the Carbon Livelihood Programme to other sites and also in the Civil Society input on good governance of the Mozambique Carbon Livelihoods Trust. The Foundation will be represented on the Trust in 2009. The Africa Forum sent a monitoring delegation that visited the project and conducted an inspection of the project and its operations. This is attached as an appendix ï **Africa Forum Report** 4. **Carbon Standards:** The project is currently preparing for an application for registration in the Climate, Community and Biodiversity Standard and is being assisted in this process by Unique Forestry Consultants. This will bring additional legitimacy to the project if it is successful. 5. **Clients :** Two clients have conducted Project Evaluations in 2008, the Carbon Neutral Company sent John O Niles, a carbon expert to the project (Report is attached) and Zero Missions sent an auditor and a manager form the company to inspect the project. These visits build strong links with clients and reinforce the project. (**Attached Report**) 6. **Environmental Licence:** The project applied for and was granted an Environmental Licence to operate in Mozambique. This was linked to a full EIA and marks an important phase in the official recognition of the carbon status of the project by the Government of Mozambique. (**See attached Licence**)