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EVALUATION

PERFORMANCE EVALUATION OF THREE BIODIVERSITY AND ECOTOURISM ACTIVITIES IN MOZAMBIQUE

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PERFORMANCE EVALUATION OF THREE BIODIVERSITY AND ECOTOURISM ACTIVITIES IN MOZAMBIQUE:

Arco Norte project

Lake Niassa project

Gorongosa Restoration project

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ACRONYMS

AAD	Activity Approval Document
ANAC	National Administration of Conservation Areas
AO	Assistance Objective
ATB	Office of Agriculture, Trade and Business
CCP	Community Fishing Council
CEC	Community Education Center
CBO	Community Based Organization
COGEP	Local Councils for Participatory Resource Management
DPTUR	Department of Tourism
DUAT	Direito do Uso e Aproveitamento da Terra – Right to Use and Employment of Land
FGI	Freshly Ground Insights
GDP	Gross Domestic Product
GNP	Gorongosa National Park
GRM	Government of the Republic of Mozambique
GRP	Gorongosa Restoration Project
IIP	National Institute of Fisheries Research
INATUR	National Tourism Institute
IR	Intermediate Objective
LNR	Lake Niassa Reserve
LTA	Long Term Administration of the National Park of Gorongosa (Agreement)
M&E	Monitoring and Evaluation
MICOA	Ministry for Coordination of Environment Affairs
MITUR	Ministry of the Tourism
NMTP	Northern Mozambique Tourism Project
NRMC	Natural Resource Management Council
PCR	Rotating Credit Program
PIA	Priority Investment Area
SDAE	District Services of Economic Activities
SOW	Statement of Work
UMOJI	“Union” in the local language
UNWTO	World Tourism Organization
USAID	U.S. Agency for International Development
WWF	World Wide Fund for Nature
ZTI	Zone of Tourism Interest

EXECUTIVE SUMMARY

Khulisa Management Services was commissioned to conduct an independent external evaluation of the USAID/Mozambique biodiversity conservation and tourism portfolio, focusing on the Intermediate Result (IR) of the Assistance Objective "*Natural Resource-Based Tourism Strengthened*." The evaluation scope covers three USAID-funded activities totalling \$13.5 million, implemented from January 2006 to December 2013, namely:

1. The Northern Mozambique Tourism Program, commonly referred to as "Arco Norte," was implemented by Robert Nathan and Associates. Between 2006 and 2010, it expended \$6.8 million.
2. The Lake Niassa Reserve (LNR) was originally funded under Arco Norte. It is implemented by the World Wide Fund for Nature (WWF), and has received \$1.2 million between 2008 and 2013.
3. The Gorongosa Restoration Project (GRP) has a Long Term Agreement with the Government of Mozambique (GRM) to manage Gorongosa National Park. While the Carr Foundation is the main donor of the GRP, the GRP received grants from USAID totalling \$4.5 million from 2008 to 2013, to help restore the Park. An additional \$1 million for the period from 1 April 2013 to 31 March 2014 was awarded as a "cost extension" in March, 2013.

The objective of the evaluation was to assess the effectiveness, impact and sustainability of these activities, and inform the design of follow-on biodiversity and tourism projects and activities.

This is a performance evaluation and it applied a combination of qualitative and quantitative methods. Evaluation data was collected through document review, key informant interviews (staff from GRM institutions and implementing partners), group interviews, and household interviews in the core areas and buffer zones of GNP and LNR. Sample size for household interviews was determined using a well-established statistical formula with a significance level of $p < .05$ (a 95% confidence interval) and precision of +/- 6%. Overall, 256 household interviews at LNR and 285 at GNP were conducted, despite logistical and budgetary constraints.

Evaluation Question 1. Effectiveness: To what extent were the expected results of each activity met, with special emphasis around the area of community relations and capacity building?

Most expected results for the LNR and GRP were met, at least partially; this is not the case for the Arco Norte project. All findings and recommendations regarding the expected results are detailed in Annex 2. Of the 6 expected results of the LNR project, all were met wholly or in part, and one target was exceeded. Of the 22 expected results of the GRP, 20 were met wholly or in part. In contrast, of the 16 expected Arco Norte results, 8 were unmet (see Table 1 below).

Table 1: Achievement of Expected Results

Results	Project		
	Arco Norte	LNR	GRP
Exceeded	1	1	0
Met	1	3	6
Partially Met	6	2	14
Unmet	8	0	2
Total	16	6	22

Community relations and capacity building have been strong points of the LNR project since its inception. In the GRP, progress is being made in strengthening collaboration with local communities, but so far several of the expected results in these areas have only been partially achieved or are unmet (Table 2). The GRP has made progress in internal capacity building, participatory management and strong involvement of Mozambicans in management decisions. Arco Norte had two partially met expected results in this area.

Table 2: Achievement of Community Relations and Capacity Building Results

Results	Project		
	Arco Norte	LNR	GRP
Exceeded	0	1	0
Met	0	1	1
Partially Met	2	0	5
Unmet	0	0	1
Total	2	2	7

Evaluation Question 2. Effectiveness: Which were the major factors influencing the results of key aspects of effectiveness, such as activity design, implementation and M&E that were achieved and those that were not achieved?

Arco Norte positive factors: Delegating responsibility to WWF for the establishment of the Lake Niassa Reserve was a wise move, leading to the accomplishment of that objective and subsequent direct funding from USAID to the LNR project.

Arco Norte negative factors: Lack of funds to implement Zones of Tourism Interest (ZTIs); lack of detailed urbanization plans for the ZTIs; lack of capacity development for tourism associations and provincial and district government institutions; unclear and ambitious objectives; an exclusive emphasis on 3-5 star hotels, impeding investment by small and medium investors; design failures such as not taking into account the major shortcomings in transportation (both air and surface) and urban environmental problems, which were largely beyond the control of the project. For example, the Technical Approach section of the Statement of Work regarding the Implementation Phase of the NMTP, which lists several impediments to tourism development in the three Northern provinces, does not mention transportation problems at all.

LNR positive factors: WWF consulted and promoted the participation of key actors, such as local communities and district and provincial government authorities, in the pursuit of the expected results.

LNR negative factors: Disagreements between ministries regarding priority management actions for Lake Niassa.

GRP positive factors: Presence of an experienced management team; collaboration with universities and research institutions from overseas; appointment of Mozambicans to senior managerial positions, and good media exposure.

GRP negative factors: Perceptions of middle-lower level management that there are shortcomings in internal communication with top management; frequent changes of expatriate senior staff as their contracts end; limited road network and poor quality of existing roads; absence of quantitative indicators to measure progress in relation to each of the project goals/results. Negative factors beyond the control of the GRP include the political-military situation around Mount Gorongosa, which has impeded the execution of certain important activities in the area; the high number of impoverished people living in and around the park, many of whom participate in poaching, illegal logging/mining, and slash and burn agriculture; and high transport costs for tourists to visit GNP.

Evaluation Question 3: Impact: What negative and positive changes occurred and to what extent has the assistance provided by these three programs contributed to these changes?

Arco Norte positive changes: Rehabilitated monuments, tourism Master Plan and ZTIs, trained trainers of services providers and trained tour guides.

Arco Norte negative changes: Widespread disillusionment and skepticism of tourism operators and local government institutions regarding such efforts to boost tourism in Mozambique. Several of the project outputs, such as a manual on monument maintenance, are not readily available.

Project results are attributed to financial support from USAID. However, INATUR and DPTUR also contributed with funds to cover travel expenses for their staff. USAID funds mainly paid for consultancy services to prepare the Master Plan, and rehabilitation of the monuments on Ibo Island (building materials and wages for construction workers), travel and workshops.

LNR positive changes: LNR legally established with widespread community support for conservation, increased awareness of the difference between harmful and sustainable fishing practices, increase in total fish catches for those associations with boats and fishing nets.

LNR negative changes: Reduced fish catches for fishermen who do not have access to or the money to purchase proper fishing nets. The motivation of community rangers is declining.

Attribution of the changes to USAID support may be gauged by the fact that the USAID grant to WWF has helped fund the purchase of a vehicle, a boat, tents, GPS, cameras and data recorders, as well as the training of CCPs' community rangers, fisheries associations, and UMOJI; in addition, it has been used to pay the wages of the community rangers. WWF has also received financial support from The Coca Cola Africa Foundation.

GRP positive changes: Increase in the size and diversity of wildlife populations (for example, re-introduction of blue wildebeest and buffalo), tourism gate fees shared with local communities, inclusion of Gorongosa Mountain in the park, growing research for science-based park management, and environmental education for local communities and students.

GRP negative changes: Some community perceptions that GNP was sold to “white people” and that there is increased crop damage by wild animals, tourism operators leaving the park, and a perceived prohibition of slash and burn agriculture without provision of alternative sources of livelihood and income for local farmers.

Most of the listed changes may be attributed to USAID support, because with the USAID biodiversity grant the GRP purchased equipment, paid salaries, rehabilitated roads, built a wildlife sanctuary, constructed the CEC, and paid for uniforms and rations for rangers. These inputs contributed to the achievement of the results. However, USAID biodiversity funds have sometimes been mixed with funds from other sources, such as the Carr Foundation, in covering GRP operational costs, which makes it difficult to separate the contribution of USAID from those of other donors.

Evaluation Question 4: Sustainability: Regarding the Lake Niassa Reserve: Is the growing catch in the Lake Niassa Reserve sustainable? What are the effects on biodiversity and fish diversity?

Regarding fishing in the Lake Niassa Reserve, currently less use is being made of mosquito nets for fishing, trawling using small mesh nets, and poison in the rivers. While total catches have been increasing, there has been an increase in effort and a decline of between 20% and 51% in Catch per Unit Effort (CPUE) for three of the five most used fishing methods, suggesting a decline in fish abundance. However, there has been an increase in CPUE for Lake Sardine due to increasing use of the chilimila method (a fishing method that consists of using illumination to attract Lake sardines to fishing nets). Thus, the growing catch in the Lake Niassa Reserve is not sustainable. Further research is required to determine the effects on biodiversity and fish diversity.

Evaluation Question 5: Sustainability: Regarding the Gorongosa Restoration Project, to what extent has the Gorongosa National Park been working towards financial sustainability?

The GNP is not yet progressing toward financial sustainability, for several reasons: the limited number of tourism operators and hotel rooms in the park; tourism operators leaving the park; and the low diversity of tourism activities. Factors beyond the control of park management include high transportation costs to visit the park; seasonal flooding limiting the duration of tourism activities; and the political-military situation in the area. Even if the political-military situation is resolved, with the current pace of growth of tourism there is very little possibility that it will bring financial sustainability to the GNP within the anticipated 20-year period. However, it should be noted that national parks, as a public good, are generally subsidized by governments and international conservation NGOs.

Evaluation Question 6: Sustainability: Regarding the Arco Norte Tourism Project: Are any of the changes reported by the project still present/active?

Changes reported by the Northern Mozambique Tourism Project (NMTP) that are still active include rehabilitated monuments (although they are in need of maintenance), trained four trainers of tourism operators, and the Master Plans/ZTIs, which, if implemented, may result in better organized tourism development. The other active change to which the NMTP contributed, but largely by delegating responsibility to WWF and the subsequent LNR project, is the establishment of the Lake Niassa Reserve, to preserve one of the world's richest aquatic ecosystems. Several of the outputs listed in the project final documents, such as the Manual on Monument Maintenance, do not seem to be readily available.

Evaluation question 7: Effectiveness: What key lessons should be learned from the programs' strengths or weaknesses and what are the implications/ recommendations for future implementation and for USAID program design?

Recommendations for future implementation and USAID program design:

1. Building upon this evaluation, USAID should offer to support the GRM in the evaluation of the Strategic Plan for the Development of Tourism in Mozambique (2004-2013); this may well provide important information for the design of a future ten year tourism plan.
2. WWF should find ways to effectively advocate the rapid approval and implementation of the LNR management plan, which encompasses measures that will potentially make fishing more sustainable, such as protecting selected fish breeding sites.
3. The GNP should find resources to improve the coverage of the road network, including a bridge over the Urema River. This will result in better patrolling and fire prevention and control. Diversifying activities might increase park revenues from tourism. Radio channels for safari guides would improve the number of tourism operators and the quality of tourism activities.
4. GRP should continue pursuing efforts toward more transparent management and open communication.
5. In addition to annual reports submitted by implementing partners, USAID should conduct mid-term evaluations to detect negative factors and changes to be corrected within the funding period.
6. In parallel to funding biodiversity conservation and tourism activities, USAID should consider funding education activities in the proximities of BioTur activity areas, as a step toward reducing the current high levels of illiteracy. This would help prepare local people to benefit from development projects in the future, including biodiversity and tourism projects.
7. Future activities should have more comprehensive M&E plans, including collecting robust baseline data and quantitative indicators to measure activity outputs/outcomes.

8. Participatory Impact Pathways Analysis (the PIPA approach), widely employed by USAID in the Americas, is one possibility for identifying and resolving communication and networking problems and analyzing their relationship to impact.

1 INTRODUCTION

Under USAID/Mozambique’s Economic Assistance Objective (AO), the Office of Agriculture, Trade and Business (ATB) has funded several biodiversity conservation and tourism activities. The overall AO is “*Inclusive Growth of Targeted Economic Sectors,*” such as agriculture and tourism, which will support an increase in the income of the poorest Mozambicans. The AO strategy is to improve Mozambique’s business environment and strengthen natural resource-based enterprises. This strategy is in line with the GRM’s development objectives and strategies, particularly its national plans for improving the business environment and promoting tourism.

This is an independent external evaluation of the biodiversity conservation and tourism portfolio of USAID Mozambique, which focuses on the third Intermediate Result (IR) of the objective of the AO, *Natural Resource-Based Tourism Strengthened*. By strengthening natural resource-based tourism, the portfolio aims to encourage diversification of rural economies and ensure the protection of several areas where biological diversity is under threat.

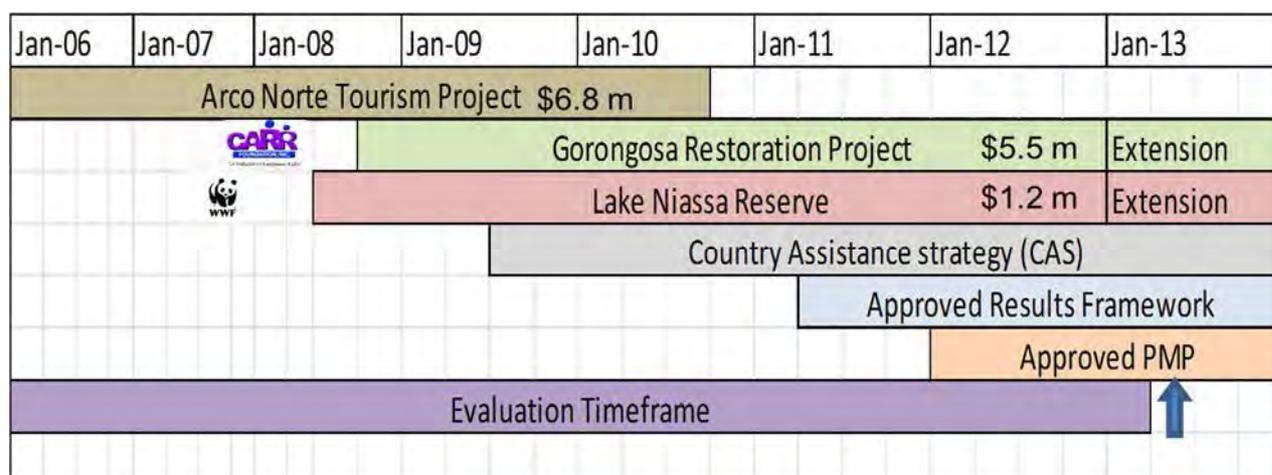
The scope of the evaluation covers the two different biodiversity activities: Gorongosa Restoration Project (GRP) and Lake Niassa Reserve (LNR), under the current portfolio, and the tourism activity that ended in 2010 entitled “Northern Mozambique Tourism Project,” (NMTP) commonly referred to as “Arco Norte.”

1.1 Evaluation Purpose

The purpose of this evaluation, as stated in the Scope of Work (SOW), is to:

- Assess the effectiveness, impact and sustainability of the ongoing biodiversity activities and the tourism program, and whether goals are being or have been achieved; and
- Inform the design of the follow-on biodiversity and tourism activities, and long-term strategy.

1.2 Project Background



1.2.1 Northern Mozambique Tourism Project (NMTP or Arco Norte)

The northern region of Mozambique has a diversity of cultural, historic and natural attractions, which may make tourism a tradable sector. However, the tourism resources of Mozambique and northern Mozambique in particular are undeveloped. Infrastructure to support an internationally competitive tourism industry is lacking. Major cultural, historic and natural assets with potential for development as iconic attractions for tourism have been endangered by a lack of conservation and inadequate land allocation. Therefore, the purpose of the NMTP was threefold: (1) to promote a Northern Mozambique tourism product, attracting more tourists to the region; (2) to increase investment in the tourism sector in the region, in order to effectively accommodate and benefit from an expansion of the tourism industry; and (3) to preserve key environmental assets on which Northern Mozambique tourism is based. Called Projecto Arco Norte by Mozambique's Ministry of Tourism and Programa de Turismo Moçambique by USAID, the first project (656-M-00-06-00038-00), which began in January 2006, was to end in January 2009, but was extended until September 30, 2010. The prime contractor was Nathan Associates Inc. The total USAID grant was \$6,800,000.

1.2.2 Lake Niassa Reserve (LNR)

The Lake Niassa Reserve (LNR) Project started in April 2006, with new funding from USAID (656-B-00-06-00129-00), and was renewed in August 2008 (656-G-00-08-00218-00); it is scheduled to terminate at the end of 2013. While the project is executed by WWF, it is directly managed by USAID. Note that LNR is expected to contribute to the overall objectives and anticipated results of the Northern Mozambique Tourism Program, for which it was mostly responsible in the Lake Niassa region. USAID provided a direct grant to WWF to establish the Lake Niassa Reserve; the grant is \$300,000 per year for a total of four years, with co-funding by The Coca-Cola Africa Foundation. Lake Niassa is highly diverse in fresh water species and habitats, with more than 1000 species of fish, out of which ca. 700 are endemic. By contributing to the preservation of the environment in and around the Lake Niassa, which is a priority area for tourism development in Niassa province, the grant was to help attract investors and tourists, thus contributing to the achievement of the overall objectives of the NMTP.

The main government partner for these activities was to be the Ministry of the Tourism (MITUR), which was to coordinate with the Ministry for Coordination of Environment Affairs (MICOA) and the Ministry of Fisheries. In the case of Lake Niassa, it is the Ministry of Fisheries that has taken the primary responsibility for project execution to date. Under Decree no. 9/2013, of April 10, 2013, the National Administration of Conservation Areas (ANAC), which is subordinated to the Ministry of Tourism, has now been given responsibility for the administration of national parks and reserves; negotiations are currently underway for the transfer of the LNR to ANAC.

1.2.3 Gorongosa Restoration Project (GRP)

Gorongosa National Park (GNP) was once a national gem and a top tourism destination, with the highest concentration of wildlife in all of Africa (see Annex II). However, it was devastated during the civil war (1976 – 1992), which provoked a decline of approximately 95% in the wildlife populations. Despite the peace that Mozambique has enjoyed since 1992, the

Gorongosa ecosystem remains under several threats to its integrity and biodiversity. The Carr Foundation has a Long Term Agreement (LTA) with the GRM to restore the Gorongosa ecosystem. The priority of GRP is biodiversity conservation, because the restoration of a healthy and diverse ecosystem is a foundation for social and economic development. Therefore, a healthy GNP depends on protecting wildlife, managing the ecosystem and contributing to human development in the buffer zone. The Carr Foundation was awarded \$4,449,635 to assist the biodiversity conservation activities of the GNP, through the implementation of the GRP. The initial grant was dated December 10, 2008. Under Modification n° 7, the period of the agreement was extended from 10 December 2012 to 31 March 2013, through a no cost extension. Under Modification n° 8, the period was extended from 1 April 2013 to 31 March 2014, and the amount of the award increased to \$5.5 million.

2 EVALUATION QUESTIONS, DESIGN, METHODS AND LIMITATIONS

To evaluate the effectiveness, impact and sustainability of biodiversity conservation and tourism activities, the team has used a triple bottom line approach (Norman and MacDonald, 2004; Wood, 2004), encompassing biodiversity conservation, economic development and community benefits.

Table 3: Evaluation Questions, In Synthesis

DAC Components	Overarching Evaluation Questions
Effectiveness	To what extent were the expected results of each activity met, with special emphasis around the area of community relations and capacity building? Which were the major factors influencing the results of key aspects of effectiveness, such as activity design, implementation and M&E that were achieved and those that were not achieved? <i>Additional Question:</i> What key lessons should be learned from the programs' strengths or weaknesses and what are the implications/recommendations for future implementation and for USAID program design?
Impact	What negative and positive changes occurred and to what extent has the assistance provided by these three programs contributed to these changes?
Sustainability	Regarding the Lake Niassa Reserve: Is the growing catch in the Lake Niassa Reserve sustainable? What are the effects on biodiversity and fish diversity? Regarding the Gorongosa Restoration Project: To what extent has the Gorongosa National Park/Reserve been working towards financial sustainability? Regarding the Arco Norte Tourism Project: Are any of the changes reported by the project still present/active?

2.1 Evaluation Approach and Methodology

An objectives-based evaluation approach was taken – which did not exclude critical analysis of the objectives themselves and of the broader context. A two-pronged methodology was employed: 1) key informant interviews and group interviews, using or guided by appropriate interview schedules and complemented by desk review of available documents; and 2) survey research conducted on samples of local communities in the Lake Niassa Reserve and the Gorongosa National Park and respective buffer zones. At both LNR and GRP, a cross-sectional (one group) study design was employed, referring to the present and recent past (the latter through both recall and use of available data). Survey research would not have been appropriate for the NMTP, which did not really have a target population as such, except insofar as Arco Norte may be seen as a precursor of the LNR in Niassa Province.

2.2 Data Collection Methods & Indicators

In large measure, the indicators are implicit or explicit in the project objectives and expected results. Longitudinal data and reports issued prior to or in the early stages of implementation were, whenever possible, collected to serve as baselines for comparison. To fill in gaps in the availability of baseline information, community members and project staff were questioned regarding what changes the activities have brought. To a certain degree, the same key questions relevant to each project were asked of different categories of respondents, permitting triangulation of information collected from different sources.

2.1.1 Community Interviews, Sampling Procedures

The number and location of communities relevant for the scope of work were identified through consultations with the implementing partners of GRP and LNR. The evaluation team used the same definition of "community" employed by GRP and LNR, which is a variable number of nearby villages with similar social conditions. Variables potentially influencing community perceptions regarding the effectiveness and impacts of the project were considered in the selection of communities, to minimize selection bias and ensure that interviewed households represent the perceptions of different communities. To determine the minimum number of households to interview in each study area for $p < .05$, we initially used the formula suggested by Lemeshow, Hosmer, Klar & Lawanga (1990), apud Aday & Cornelius (2006):

$$n = \frac{z^2_{1-\alpha/2} P(1-P)}{d^2} \qquad n = \frac{1.96^2 (.50)(.50)}{.06^2} = 267$$

where:

n = minimum sample size for the required precision

P = estimated proportion of affirmative responses to each question ($P=0.5$)

d = required precision (0.06)

z = the standard error for a two-tailed test, in this case with an alpha level of .05 (a probability of .025 that we will conclude that the sample value is within the confidence interval when it is in fact below it, and of .025 that we will conclude that it is within the confidence interval when it is in fact above it). Here we say that the confidence interval is 95%.

The estimated population at the LNR is 39,900 individuals, while at GNP and buffer zone it is +/-200,000 individuals. Assuming an average of five individuals per household (MAE 2005a, MAE 2005b, MAE 2005c and MAE 2005d), we get 7,980 households at LNR and 40,000 households at GNP to use for the sampling frame. Then we may apply a finite population correction (fpc), using the following formula from Aday & Cornelius (2006).

$$n_{adj} = n(1+(n-1)/N)$$

Based on the required adjusted minimum sample size, n_{adj} is 258 households for LNR and 265 households for GNP. The actual sample sizes were 256 and 285 households, respectively, for a total of 541 households (see Table 6 below for category, location, and sex disaggregation). Thus, the number of interviews fell two short of n_{adj} at LNR, an insignificant amount. Note

that the actual precision for LNR, with 50% answering a question in the affirmative, is 6.03%; if 45% answer in the affirmative (or in the negative), the precision is 6.0%.

In other words, assuming that our sample is representative of the population, if our sample data show that 50% of the respondents say yes to a certain question, we may be 95% certain that between 44% and 56% of the population would respond yes.

Figure 1: Location of Households Interviewed in the Lake Niassa Reserve



For LNR, geographical location was taken into account, in order to ensure that communities were sampled in the south, center and north. Within each region, specific variables differentiating communities, and hence considered in the sampling design, were the presence of saving and credit groups (PCR) and of fishing associations. The communities included in the evaluation are shown in Table 5. The central region of the LNR was less well represented in the sample, due to the difficult access associated with a lack of roads in this predominantly mountainous area.

Table 4: Households Interviewed in Different Communities in the Lake Niassa Reserve

Community	Region of the Reserve	PCR	Fishing Association	Date of Interview	Households Sampled
Chiuanga	Center	Absent	Present	26/08/2013	45
Ngolongue	South	Absent	Absent	27/08/2013	40
Meluluca	South	Present	Present	27/08/2013	43
Cobue-Sede	North	Present	Present	28/08/2013	85
Chilola	North	Absent	Absent	29/08/2013	21
Chicaia	North	Present	Absent	29/08/2013	22
Total					256

Age Ratio: 18-34:123; Age 35+:133 Gender Ratio: Male: 137; Female 119

For the GRP, specific variables concerned location in the core park (inside) or buffer zone (outside). While inside the park the interventions of park management are restricted to environmental awareness campaigns, in the buffer zone, the park promotes both environmental awareness and socioeconomic development (e.g., clinics, schools, etc.). Differences in the degree of park interventions among communities in the buffer zone were also taken into account in the sampling design. Despite their relevance for the evaluation of

the GRP, communities living in the north of the GNP were not included in the sample due to lack of security associated with the tense political-military situation between RENAMO and the government forces.

Figure 2: Location of Households Interviewed inside and around GNP

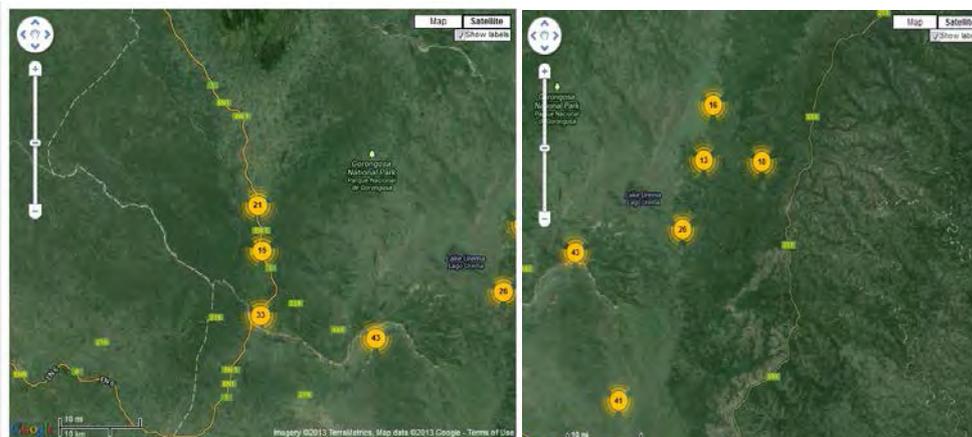


Table 5: Households Interviewed in Communities in and around GNP

Community	District	Location	Level of Park Intervention	Date of Interview	Households Interviewed
Nhambita	Gorongosa	Buffer zone	High*	13/08/2013 & 14/08/2013	57
Nhanguo	Gorongosa	Buffer zone	High*	15/08/2013	45
Vinho	Nhamatanda	Buffer zone	High*	16/08/2013	42
Nhampoca	Nhamatanda	Buffer zone	Low**	17/08/2013	52
Mueredzi	Muanza	Core park	High**	18/08/2013	41
Ngoinha	Muanza	Core park	Low**	19/08/2013	48
Total					285
<i>Age Ratio; 18-34: 130; 35+: 155.</i>			<i>Gender Ratio; Male: 140; Female: 145</i>		
<i>*High: includes creation of natural resource management committees; allocation of 20% of tourism revenue; building of socioeconomic infrastructure such as clinics, schools and water pumps; environmental education; and development of community tourism.</i>					
<i>**Low: park interventions are limited to environmental awareness campaigns and mitigation of human-wildlife conflicts. The Mueredzi community has signed a Memorandum of Understanding with GNP for its resettlement to the buffer zone.</i>					

Within each community, the first household to be interviewed was selected randomly, and the remaining households were selected systematically by interviewing every fourth household, i.e., skipping three. An effort was made to approximate a balance of gender and age classes in the total sample (Table 3). The ratio of interviewed men to women in the evaluation of the LNR was 0.88:1, compared with the 1:1.06 ratio in the Lago district as a whole (MAE 2005d). For the GRP, the ratio was 1:1.04, which approximates the ratio of 1:1.06 in the districts covered by the sample (Gorongosa, Nhamatanda and Muanza) (MAE 2005a, MAE 2005b and MAE 2005c). Levels of schooling are low in both study areas: only 23% and 8% of the 256 LNR and 285 GNP individuals interviewed, respectively, had completed primary education (grade 7). Household interviews were administered by trained enumerators hired by Freshly Ground Insights (FGI), a company sub-contracted by Khulisa. The interviews were conducted using local languages (Yao and Nyanja at LNR, and Sena and Ndaou at the GRP), employing the interview schedule presented in Annex III.

Budgetary and time constraints, distances and poor roads made it impossible to survey larger samples in both areas, and thereby reduce the margin of error (improve precision).

2.1.2 Key Informant Interviews

The following key informants were interviewed by the evaluation consultants, using the interview schedule presented in Annex III. In total, 37 key informants (31 men; 6 women) were interviewed (see Table 6 below for category, location, and sex disaggregation).

- Government officials: Government Officials of the tourism and biodiversity conservation, environment and fisheries sectors at the national, provincial and district levels. In addition to interviews, relevant reports were collected to obtain data for comparison with other data gathered during this evaluation.
- ATB Project Implementing Partners: current and former managers and staff of the three projects under evaluation. In addition to interviews, relevant baseline data and reports were collected for comparisons of equivalent data before and after the implementation of the projects.
- Owners and Managers of Hotels, Lodges and Travel Agencies: Cabo Delgado and Niassa provincial directorates of tourism, district services of economic services, ATB implementing partners and provincial hotel and tourism associations were consulted on the number and location of hotels, lodges and travel agencies in the Northern Arc. From the list, a sample of lodge and hotel owners and managers in Pemba, Ibo Island, Lichinga and Lake Niassa, as well as GNP, was interviewed. A record of the key informants interviewed with regard to each project is presented in Annex IV.

Table 6: Summary of Respondents

Category of Respondent	Project								
	Arco Norte			LNR			GRP		
Gender	M	F	T	M	F	T	M	F	T
Government Institutions	8	2	10	10	2	12	3	1	4
Implementing partners/staff	3	0	3	5	0	5	9	1	10
Hotels, Lodges and Travel Agencies	7	3	10	1	1	2	3	1	4
Households	---	---	---	137	119	256	140	145	285

Group interviews were conducted with seven community-based organizations at LNR.

2.2 Data Analysis

Most data collected from household interviews was categorical. Proportions of respondents within each category of response were calculated and compared. For some questions, the sample size for the calculation of percentages is lower than the total number of households interviewed because questions were skipped whenever not applicable to a respondent. Data obtained from key informants were analyzed using informal content analysis and pattern matching.

Note that the LNR and GRP household data are not compared, as this was not envisioned in the evaluation design, nor are the two projects comparable.

2.3 Risks and Limitations

The tense political-military situation prevented the evaluation team from interviewing households at Mount Gorongosa or visiting the Mount Gorongosa reforestation project. See above description for further explanation.

Poor quality roads, limited time, difficult terrain and long distances between communities affected access for household interviews and limited the total number of households interviewed. At LNR, the lack of a boat impeded the inclusion of certain communities in the sample.

The construction of retrospective baselines based on interviews was complicated to a certain degree by changes in the leadership of government institutions and ATB project managers, which, to some extent, had led to a loss of institutional memory.

3 FINDINGS, CONCLUSIONS & RECOMMENDATIONS

The scheduled termination of USAID's funding for the LNR project and the GRP coincides with the conclusion of the Strategic Plan for the Development of Tourism in Mozambique (2004-2013), while the NMTP spanned nearly five years in the middle period of the Strategic Plan. The Strategic Plan pointed out that tourism *"is an international business that in 2001 contributed 4.2 percent to the Gross Domestic Product (GDP) of the global economy and employed 8.2 percent of the world's economically active population. It is a growing and highly competitive international business."*

3.1 Findings: Northern Mozambique Tourism Project (Arco Norte)

Evaluation Question 1. Effectiveness: To what extent were the expected results of each activity met, with special emphasis around the area of community relations and capacity building?

3.1.1 Tourism-Related Expected Results of the NMTP

The Arco Norte project had a number of expected results, including:

1. The Northern Mozambique Arc established as a private public community stakeholder forum for tourism development and promotion – partially met.

The project created a regional federation of provincial associations and promoted the inauguration of the National Hotel & Tourism Association of Mozambique. However, the activities aimed at strengthening the associations were very limited in scope. Partly as a result of a lack of capacity building, the associations were active only during the lifetime of the project. Additionally, the objectives of the project were never well understood by the tourism operators; this led to unfounded expectations of project financial support, in terms of investment in tourism infrastructure.

The northern region office of INATUR, which has as its prime mandate the promotion of tourism development in the region by encouraging investment and providing capacity building to tourism operators, was not involved. All activities were planned at INATUR headquarters in Maputo and by the provincial tourism directors. The implementation approach did not consider the involvement of regular staff of public institutions. As a result, changes of directors led to a loss of institutional memory and a lack of continuity of project activities. Government institutions such as the regional INATUR and DPTUR offices face shortages of funds to implement activities, such as training tourism operators to strengthen partnerships between the public and private sectors.

2. Hotel investments attracted – partially met.

The project's first initiative to attract investors was to design a Master Plan. Zones of Tourism Interest (ZTIs) approved by decree of the Council of Ministers included: Pemba and Ibo Island, in Cabo Delgado Province; Lichinga and Chiuanga (Município de Metangula), in Niassa Province; and Namalungo 1 and 2, Mujijivava Crusse, Lumbo and Sancule (Isle of Mozambique), in Nampula Province. However, the ZTIs are currently not being implemented. Most ZTIs are not attractive to investors, due in part to the need to compensate and resettle

the occupants of the land. Most landholders have limited financial capacity to invest in tourism infrastructure. In addition, ZTIs are often unattractive because they lack basic infrastructure (roads, water, electricity, sewage management infrastructure); also, the airports in northern Mozambique are generally too small to receive international flights. See *Impact of air transport liberalization on tourism and the wider economy in Mozambique* (October 2013, SPEED). Draft. <http://www.speed-program.com/wp-content/uploads/2013/08/2013-SPEED-Report-020-Mozambique-Civil-Aviation-Liberlization-Final-EN.pdf>, for a discussion of recent USAID-support efforts under the Mozambique Support Program for Economic and Enterprise Development (SPEED). There is limited investor-oriented marketing of the tourism potential of northern Mozambique. According to key informants, the growing number of investments in hotels and lodges in recent years is in response to the demand for accommodation associated with the growth of the gas industry, and cannot be attributed to Arco Norte project activities.

3. Hotel rooms offering 3-5 star rating increased by 20% from current level of 300 - Unmet.

Data from MITUR indicate an increase of only 6% in the number of beds, from 6,173 beds in 2008 to 6,559 in 2009. The figures are not broken down by number of stars.

4. Attraction of tourists: International leisure tourist arrivals to the Northern Arc currently estimated at 10% of the national total, increased to 15% - Unmet. (see Table 7)
5. An average of 35,000 tourists were to visit the north each year, with an average length of stay of 7 days - Unmet. (see table 7)
6. Average hotel occupancies were projected to increase by 35% - Unmet.

The number of international hotel guests is a poor proxy for the number of international leisure tourists, since it includes business travellers and others; but it is the only data available (see Table 7). Total international hotel guests nationwide remained at around a quarter of a million during the period, while guests in the three Northern provinces ranged from 5 to 10% of that total (while in the project documents the "baseline" amount was 10%, according to MITUR, the 2008 baseline was actually 8%). The doubling of the regional percentage between 2011 and 2012 apparently reflects mainly the surge in gas-related international clients in Cabo Delgado province. At any rate, total international guests in the Northern provinces fell short of 24,000 in 2012. Furthermore, the average length of stay is 3-4 days, rather than 7 days. In addition, hotel occupancy remains below the targeted 35% (16-34% in 2008 and 21-30% in 2012). The diversity of leisure activities available to tourists and the service quality are low, but the accommodation cost is high. It seems the project failed to address these and other relevant issues (see discussion below, under Environment).

Table 7: International Hotel Guests, 2008-2012

Province	2008	2009	2010	2011	2012
Nationwide	257,046	236,657	267,720	278,233	247,870
Niassa	2,225	2,385	2,273	2,380	2,992
Cabo Delgado	16,048	10,144	10,442	10,192	16,708
Nampula	2,807	2,769	2,694	3,976	4,259
North Total	21,110	15,298	15,409	14,406	23,959
% North	8%	6%	6%	5%	10%

Source: National Institute of Statistics (INE), adapted.

7. Mozambique's international tourism receipts increased by 50%, from the present level of \$106 million in tourism generated income for the country - Exceeded.

Nationwide, international receipts (from tourists and others) increased 30.5%, from \$190 million in 2008 to \$248 million in 2012; even this is perhaps noteworthy, considering the nationwide stagnation in numbers of international hotel guests and duration of stay shown above.

8. Quality of services in hotels, restaurants, attractions improved and revenues increased by 15% - Unmet.

The rehabilitation of monuments was the project's best contribution to the attraction of tourists. The main monument (Fortaleza São João Baptista) is cleaner than before. The facilities have been used by other institutions, such as the Ibo Foundation, to establish a museum which tourists seem to like, as indicated by their messages in the book available for the guests to sign. However, local institutions were not involved in decision making regarding rehabilitation, so there is limited local ownership. Additionally, the rapid deterioration of the paint might suggest poor quality of the paint. Since rehabilitation, there has been no maintenance. The project also contributed to training of four trainers (all women) of service providers from CDTUR, in partnership with INATUR, which are involved in training tourism operators to improve the quality of services. However, poor service quality remains a constraint for tourism development in northern Mozambique.

Figure 3: Rehabilitated Monuments and the Museum



Figure 4: Maritime museum established by Ibo Foundation inside the Monument rehabilitated by the Arco Norte Project



The capacity of the establishments surveyed in this evaluation is actually quite small, which potentially limits revenues (see Table 8):

Table 8: Hotels and Lodges at Ibo Island, LNR and GNP Minimum Price and Capacity

	Minimum Price per Person US\$	Capacity Persons	Recent Profit?
CABO DELGADO			
Ibo Island Lodge	334*	30	yes
Miti Miwiri	65	24	yes
Cinco Portas Guest House	80	16	yes
NIASSA			
Girassol Lichinga Hotel	94	70	unknown**
Nkwichi Lodge	330*	24	no
Mbuna Bay Retreat	110*	26	no
GORONGOSA			
Girassol Gorongosa Lodge and Safari	127	100	no

* Price include accommodation and all meals

** Unknown to the local manager.

The only establishments reporting a profit recently are the three lodges surveyed on Ibo Island, Cabo Delgado province. Of the above hotels and lodges, only one has been able to avoid the major drawbacks afflicting the tourist industry in Mozambique: the extremely high air fares, poor roads, and formalities and costs involved in entering the country. We are referring to Nkwichi Lodge, in northern Lake Niassa, which receives 70% of its guests by boat from nearby Malawi; it did turn a profit prior to the 2008-2009 financial crisis. The overall target of a 15% increase in revenues was not achieved.

9. Tourism-related small, medium and micro enterprises created - Unmet.

The project contributed to the improvement of the quality of tourism services by training four trainers of tourism operators in Cabo Delgado, all women. However, the lack of credit schemes for small and medium enterprises has for the most part impeded the establishment of tourism-related small businesses. The contribution of the trained trainers of tourism operators is limited by the lack of institutions to fund the courses to tourism operators, including subsidies to the trainers.

3.1.2 Community-Related Expected Results of the NMTP

Project objective 3 is *"Involve communities in development."*

According to the NMTP final report, *"To ensure community stewardship of and participation in conservation and tourism development, NMTP facilitated the process for creation of a conservancy on Pemba Bay and a marine reserve on Lake Niassa"* (see discussion below).

Of the sixteen anticipated results of the Northern Mozambique Tourism Program, only one mentions (indirectly) the question of community benefits:

10. Significant domestic tourism travel by middle and upper income Mozambicans will be generated to the Arc, redistributing income to rural areas, and promoting a sense of understanding and national unity – Partially Met.

Domestic hotel guests in the Northern Arc increased 10.4%, from 22,213 in 2008 to 24,525 in 2012. However, a nationwide sample of 10,700 households interviewed between September 2008 and August 2009 found that only 5.7% of domestic travel was for vacation and leisure (MITUR, 2013). Failure of the Arco Norte project to attract investors to the ZTIs and increase tourism arrivals has limited the contribution of tourism to job creation and the improvement of livelihoods for local communities. Among the 256 households interviewed at LNR, 41% (with no sex differences) reported improved livelihoods and employment opportunities.

11. Ensure effective stewardship and participation of local communities in conservation and tourism industry development – Partially Met.

The municipalities are said to “*play a critical role in the development of tourism in urban centers*” (Government of Mozambique, 2003, Tourism Policy and Strategy). This is in line with the policy of decentralization introduced in 1997. But to what extent can the Mozambican municipalities, or “*local autarchies*,” actually play this role, particularly with regard to ecotourism? The NMTP Final Report (Nathan Associates, 2011) concluded that “*All key destination areas including Pemba, which is being positioned as the tourism gateway, lack administrative capacity and sometimes the leadership that would enable local governments to assume vital roles in tourism development.*” Chiziane (no date) reached basically the same conclusion for the central and southern provinces of the country.

In May 2007, the NTMP developed a legal framework and statutes to establish Local Councils for Participatory Resource Management (COGEP’s). Under Article 95, paragraph 1 of Decree 12/2002 of 6 June (the Forestry and Wildlife Regulation), COGEP’s shall consist of equal numbers of representatives from (1) local communities, (2) businesses (individuals or companies), (3) associations or NGOs, and (4) the state. However, in line with the prevailing view that conservation is mainly a problem for rural areas, COGEP’s are normally not established in cities, nor do municipalities such as Pemba appear to be particularly concerned with the matter.

3.1.3 Environment-Related Expected Results of the NMTP

Among the NMTP expected results for the three-year period ending January 2009 are the following for Objective 4, Enhance biodiversity conservation and management of environmental assets. “*Preserve biodiversity and key environmental assets on which Northern Mozambique’s economy is based:*

12. Lake Niassa, one of the world’s richest aquatic ecosystems, declared a protected marine park to preserve biodiversity in line with environmental standards - Met.
13. Pemba Bay Conservancy established by private, public, and civil society organizations with an interest in the bay. Conservancy will develop and enforce regulations and land use plans – Unmet.

Furthermore, in the USAID approved extension for the 18-month agreement ending September 2010, additional results were included:

14. Enhance biodiversity conservation and management of key environmental assets in Northern Mozambique - Unmet.

15. Scientific studies on Pemba Bay, coastal conservation in priority investment areas (PIAs) and the Lake Niassa Marine Reserve establish data and knowledge base for conservation – Partially Met.
16. City and town plans revised and land and townscapes in PIAs of destination communities protected and enhanced - Unmet.

With a view to producing conservation and management plans for coastal areas zoned for resort development, NMTP conducted a major ecological study within the proposed Arco Norte project area, including the shorelines of Chuiba-Murrebue (Cabo Delgado), Lumbo-Sancul (Nampula), and Chiuanga (Niassa). The study identified the ecological composition of these areas and their sensitivity to development. The results of this study, among others, were incorporated in the Master Plan (Regional Tourism Development Report), pages 11 through 24 of which deal with the natural environment.

The NMTP final report lists nine activities at Lake Niassa which “*were accomplished under a grant to WWF/Mozambique.*” These are discussed below, under the Lake Niassa Reserve project. In addition, the report lists three “*protected areas*” in the northern region, two of which are mostly in Niassa Province, inland to the east of the LNR: the Niassa Reserve (bordering Tanzania, with its easternmost portion in Cabo Delgado Province) and Manda Wilderness, which is not officially a protected area (the third is Quirimbas National Park, in Cabo Delgado Province).

Discussing the significance of the natural environment for tourism development in Arco Norte, the Regional Tourism Development Report (p. 24) states the following: “*Being predominantly rural, Northern Mozambique is faced with a lot of Environmental Management issues. Some of these issues identified during site investigations are: • Poor sanitation (beach defecation) • Poor water quality • Saline water being pumped from bore holes • Illegal waste dumping • Uncontrolled development within ecologically sensitive areas • Environmental Impact Assessments are not being carried out for listed developments.*” On site observation and review of the Mozambican press indicate that these phenomena show no signs of abating.

To what extent were the expected NMTP results met?

In general, the project objectives of attracting investments and tourists were not achieved. The expected results were perhaps too ambitious to be met in a five year project, considering the prevailing conditions of expensive air fares, difficult access to land for investors, shortage of government funds, red tape, neglected urban problems, etc. The Master Plan seems to have been the main project “*deliverable,*” even though it was not a key project objective. Of the sixteen expected results, one was exceeded, one was met, six were partially achieved and eight were not achieved (see Annex I for details).

Conclusions:

The Strategic Plan for the Development of Tourism in Mozambique (2004-2013) specified three strategies for the use of Mozambique’s key tourism resources and three additional factors. Among the latter was “*the application of spatial focus in integrated planning, marketing and product development.*” There was a major design flaw in the Mozambican Government

Strategic Plan, and likewise in the NMTP: the failure to consider the serious shortcomings in transportation (both air and surface) and urban environment. The result has been inadequate tourism development in the urban and ocean beach areas of the North, especially in Cabo Delgado but also, to a large degree, in Nampula.

Recommendations:

- Donors to future tourism development projects should require that project implementers involve local institutions and potential beneficiaries in all stages of project implementation. This will build ownership and contribute to continuity after the end of the project.
- The municipalities of Pemba, Lichinga, Metangula and Ilha de Moçambique should advocate for government funding for the preparation of urbanization plans.
- INATUR and Mosaico do Indigo should advertise ZTIs internationally to attract investors.
- Future projects to promote tourism development should take into consideration factors beyond their control, to avoid setting unrealistic expected results to be accomplished within the project lifetime.

Which were the major factors influencing the results of key aspects of effectiveness, such as activity design, implementation and M&E that were achieved and those that were not achieved?

Positive factors:

- The NMTP decision to assign responsibility to WWF for the establishment of the Lake Niassa Reserve was a wise move, leading to the accomplishment of that objective and subsequent direct funding from USAID to WWF for the LNR project.

Negative factors:

- Lack of funds to implement ZTIs.
- Lack of detailed urbanization plans for the ZTIs contributed to the failure to implement. To be sure, progress is currently being made in Pemba on a detailed urbanization map.
- Lack of capacity development for tourism associations and provincial and district government institutions.
- Neglect of the environmental problems of urban areas, such as sewage management.
- High transport costs associated with expensive air fares, lack of international airports and poor quality roads. This is a factor beyond the control of the partner, which should have been considered in designing the project.
- Failure to adequately draw in the media for tourism marketing.

- Unfounded expectations of financial support due to objectives that were not clear to tourism operators and local communities.
- The emphasis the Arco Norte project put on 3-5 star hotels impeded investment by small and medium investors without the financial capacity to invest in world standard hotels.
- Project outputs that might well be used in other tourism-based strategies are not readily available to the public.

What negative and positive changes occurred?

Positive changes:

- With the support of the NTMP, monuments on Ibo Island were rehabilitated and stabilized.
- With the support of the NTMP, the tourism Master Plan and ZTIs were developed, and if implemented may potentially result in organized tourism development.
- Thanks in large measure to the NTMP, trainers of tourism services providers exist in Pemba, and fourteen tour guides have been trained.
- Creation of provincial tourism and hotels associations.
- Production of potentially useful outputs, including studies, manuals, maps and photo banks.
- Creation, after project termination, of Mosaico do Indigo, an active public-private company oriented toward creating and managing tourism opportunities in Mozambique and legally responsible for advertising ZTIs and other tourism opportunities in Mozambique, in partnership with INATUR.

Negative changes:

- The conservancy for Pemba Bay exists only as a legal document.
- Service quality remains poor.
- Provincial tourism and hotels associations created, but do not appear to be sustained.
- Widespread disillusionment with the Arco Norte project on the part of tourism operators and institutions at the district and provincial levels was noted, because rising expectations were mostly unmet.

To what extent has the assistance provided by the NMTP program contributed to these changes?

Project results are attributed to financial support from USAID. However, INATUR and DPTUR also contributed with funds to cover travel expenses for their staff. USAID funds mainly paid for consultancy services to prepare the Master Plan, and rehabilitation of the monuments on Ibo Island (building materials and wages for construction workers), travel and workshops.

Are there any of the changes reported by the project still present/active?

- The project ended in 2010. The lasting changes include stabilized and rehabilitated monuments, which are in need of maintenance; trained trainers of tourism operators; and the Master Plans/ZTIs, which, if implemented, may result in better organized tourism development.

Recommendations:

- Building upon the findings of this evaluation, USAID should offer to support the GRM in its upcoming evaluation of the Strategic Plan for the Development of Tourism in Mozambique (2004-2013).
- Make the project outputs (e.g., Manual on Maintenance of Monuments, etc.) widely available.

3.2 Findings: Lake Niassa Reserve

3.2.1 Tourism-Related Expected Results of the LNR Project

1. Within a year of LNR declaration, tourism investors submit intentions for 60% of tourism sites identified – Partially Met.

A ZTI was identified in Metangula in 2010. However, the Arco Norte and LNR projects have failed to attract investors to the ZTI. Low levels of tourism have limited the contribution of tourism to job creation and improvement of livelihoods for local communities. Lack of government approval of the LNR management plan has delayed the implementation of tourism activities.

3.2.2 Community-Related Expected Results of the LNR Project

2. Increasing levels of community involvement in LNR resource management activities as well as the developing tourist industry - Met.

Widespread community consultations and support for the LNR are evident. Communities located outside the initially proposed reserve boundaries requested the expansion of boundaries to include them (Ministério das Pescas 2013). The number of Community Fishing Councils (CCPs) and community rangers increased between 2007 and 2010. There has been ample community involvement in the preparation of the management plan. There has been some collaboration with Nkwichi Lodge and Mbuna Bay Lodge.

3. 80% of the affected communities establish a ranger team composed of at least 10 men and women volunteers, to help manage community resources; community rangers participate in patrolling and management activities; 90% of communities nominate a LNR ranger candidate who becomes a LNR ranger - Exceeded.

Seventeen of the 20 communities (85%) have ranger teams, with a total of 39 rangers (all men, however). All rangers have been nominated by the local communities. Rangers participate in patrolling and environmental awareness, but have no power to fine for illegal fishing or destructive methods. Community rangers also lack adequate vehicles, boats, uniforms and

reasonable and timely wages. In addition, the delay in the approval of the management plan has postponed their recruitment as regular reserve rangers.

When asked to compare sources of livelihood and income over time, 20% of the 119 female respondents and 53% of the 135 males stated that they had improved since the creation of the reserve. There was no gender difference in the perception of job creation: 41% of the 256 respondents perceived an increase in employment opportunities since the creation of the reserve.

3.2.3 Environment-Related Expected Results of the LNR Project

4. Lake Niassa Reserve is declared on the basis of well-prepared documents and widespread community support - Met.

Pursuant to the environmental preservation objectives of the Arco Norte project, documents were prepared and received in Maputo in June 2009. LNR was established in 2011. There has been widespread community support, and seven communities that were initially outside the reserve area have asked to be included in it.

The process of reserve declaration was delayed by disagreement among ministries regarding the management of the lake (MICOA and MITUR being somewhat more concerned about conservation, whereas for the Ministry of Fisheries, the priority seems to be fish yields). The current discussion concerns which institution is to manage the LNR (MITUR or the Ministry of Fisheries), or what should be the division of labor between them. ANAC was established by Decree no. 9/2013, of April 10, 2013; it is subordinated to MITUR and has the responsibility for the administration of national parks, national reserves, hunting areas and game farms. Negotiations are underway for the transfer of the LNR from the Ministry of Fisheries to ANAC. However, any transfer of reserve management between ministries may imply further delays in the approval of the management plan.

5. Communities via their guard network are able to reduce damage to their aquatic resources – Partially Met.

The number of community rangers increased from 22 in 2008 to 39 in 2013, and the number of CCP's increased from 5 in 2008 to 21 in 2013 – which shows increasing community involvement in patrolling and environmental awareness. However, as discussed above, community rangers face a number of constraints that reduce their motivation and potential performance in undertaking their duties. Fifty-five per cent of the male respondents (n = 92) and 9% of the females (n = 23) had changed the way they fish due to the project, mainly by abandoning mosquito nets, reducing trawling using small mesh nets and abandoning poisoning of the rivers; 34% the men (n = 88) and 5% of the women (n = 22) had changed their place of fishing in order to protect fish breeding sites.

6. Ecosystem protection throughout the park and livelihoods program design in adjacent communities begin as soon as possible to halt erosion/destruction of habitats, species populations, and human livelihoods - Met.

Twenty one CCPs and 10 fishermen' associations were created, all patrolling against the destruction of habitats and species populations and contributing to environmental awareness.

To improve livelihoods through sustainable fishing, WWF gave fishing nets and boats to four fishermen's associations. Forty-one percent of 256 interviewed households (with no gender differences) said that there had been an improvement in employment, which contributed to improved livelihoods. Nkwichi Lodge and Mbuna Bay Lodge have contributed to this by hiring most of their employees locally; the latter currently has 23 locally hired employees.

The number of CCPs, community rangers and fishermen's associations has been increasing since 2008. Currently, there are 21 CCPs (with 261 members, of whom 55 are women and 206 men), 39 community rangers (all men) and 145 associated fishermen (10 women and 135 men) in 20 communities. WWF also works with the UMOJI association, which is represented by natural resource management councils in 16 communities inside and outside the LNR buffer zone. Sixty-eight percent male respondents (n = 74) and 82% the women (n = 68) from the communities confirmed the involvement of local people in conservation, including in discussions of the content of the LNR management plan. Seventeen of the 20 communities (85%) have nominated community rangers, of whom at least 62% of the male respondents (n = 135) and 50% of the women (n = 121) were aware.

To what extent were the expected results of the LNR met, with special emphasis around the area of community relations and capacity building?

Most expected results were achieved (see Annex I for details), including the following:

- The management plan is currently at an advanced stage of approval. However, discussions are still on-going regarding which institutions are to be responsible for management (MITUR/ANAC or a joint management board including MITUR and the Ministry of Fisheries).
- Community rangers: patrolling and awareness campaigns against destructive fishing practices, mainly through community discussions.
- Creation and support of community based organizations.
- 21 Community Fisheries Councils established and functioning.
- 10 Fishery Associations established and functioning.
- The UMOJI association trained and functioning.

Which were the major factors influencing the results of key aspects of effectiveness of the LNR project, such as activity design, implementation and M&E, that were achieved and those that were not achieved?

Positive factors:

- WWF has consulted and promoted participation of key actors in Niassa province, including local communities and provincial and local government authorities – which has resulted in increased local support for the achievement of project goals.

Negative factors:

- Disagreements between ministries regarding priority management actions for Lake Niassa.

LNR Conclusions:

- In the LNR, the strong involvement of local communities has been fundamental to the achievement of project expected results.
- The approval of the management plan and appointment of a management entity for LNR is being delayed in part by the lengthy discussions among the ministries involved.
- There is a bias in favor of men in the composition of CCPs, fisheries associations and community rangers. This results in gender differences in the perceptions of LNR project impacts.

LNR Recommendations:

- WWF should find ways to effectively advocate the rapid approval and implementation of the LNR management plan, which encompasses measures that will potentially make fishing sustainable, such as the prohibition of fishing at selected fish breeding sites.
- WWF should continue working with Community Fishing Councils and community rangers, increasing their motivation by providing basic conditions for effective work and, if possible, paying better wages.
- WWF should advocate for the rapid approval of the LNR management plan. This would result in the recruitment of community rangers as State rangers, which would increase their motivation.
- WWF should coordinate with SDAE to explore to the maximum the legal power of community rangers as described in the Regulation of Forests and Wildlife Law (Decree no. 12/2002, of 6 June 2002), and give more authority to community rangers working at LNR
- WWF should strengthen patrolling in the lake to eliminate the remaining pockets of illegal fishing or fishing using destructive methods.
- In the creation of additional CCPs, fisheries associations and community rangers, priority should be given to women, to promote changes in behavior and perceptions with regard to the impact of the LNR project.

What negative and positive changes occurred?

Positive changes:

- With the help of the two projects, the LNR was established in 2011, and enjoys widespread community support.
- Increase in total fish catches for associations with boats and nets.
- Near elimination of fishing methods that destroy habitats and species.
- With the support of WWF and others, the Manda Wilderness Association has been strengthened.

Figure 5: Drying of Lake Sardines on the banks of Lake Niassa



Negative changes:

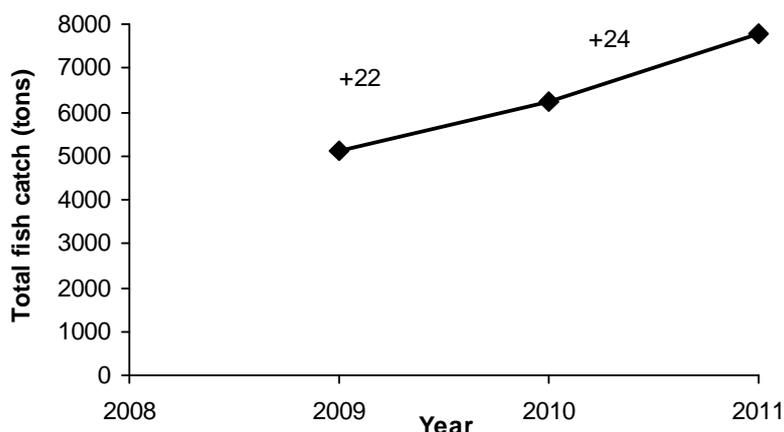
- Reduction in fish catches for fishermen who do not have access to or money to buy proper fishing nets.
- Unsustainable levels of fish catches (see below).
- Somewhat declining motivation of community rangers, due in part to the lack of authority to fine for illegal practices, limited transportation, lack of uniforms, low and delayed salaries, lack of radios or mobile phones for timely reporting, and lack of rations during patrolling activities.

To what extent has the assistance provided by the LNR program contributed to these changes?

Attribution of the changes to USAID support may be gauged by the fact that the USAID grant to WWF has helped fund the purchase of a vehicle, a boat, tents, GPS, cameras and data recorders, as well as the training of CCPs' community rangers, fisheries associations, and UMOJI; in addition, it has been used to pay the wages of the community rangers. WWF has also received financial support from The Coca Cola Africa Foundation.

Is the growing catch at LNR sustainable? And what are the effects on fish diversity?

According to the IIP, total fish catch in Lake Niassa was 5107 metric tons in 2009, 6256 in 2010 (a 22% increase), and 7781 tons in 2011 (a 24% increase over 2010) (Figure 4).

Figure 6: Fish Catch Trends in the LNR

Source: IIP (2009, 2010, 2011)

According to 71 of the 115 fishermen (62%), there has been a doubling of the period of time spent to catch the same amount of fish. Data from the IIP (2009 – 2011), collected in 21 fisheries monitoring centers and extrapolated to all 74 fisheries monitoring centers on the Mozambican side of Lake Niassa, also show that the increase in total fish catches (Figure 4) is a result of an increase in fishing effort. Catch Per Unit Effort (CPUE) fell between 20% and 51% for three of the five fishing methods used, suggesting a decline in fish abundance. However, there has been an increase in CPUE for Lake Sardine - Ussipa (*Engraulicypris sardella*), due to increased use of the chilimila method¹ and of proper fishing nets to capture adult specimens.

Based on the household survey, the number of fishermen is increasing (as reported by 68% of 115 respondents, with no gender analysis due to the small sample of women who answered the question, n=4), fish amount is decreasing (70% of 115 respondents) and fish diversity is decreasing (59% of 115 respondents). Based on these findings, we may conclude that the increase in fish catch is not sustainable.

Fish diversity is decreasing, according to 59% of 115 respondents. Ninety-five percent of female respondents (n = 22) and 87% of male respondents (n = 92) did not perceive the reappearance of species that had gone extinct. However, there are as yet no consistent data to measure fish diversity. Interviewed households, CCPs and community rangers mentioned 15 species caught by fishermen (Table 10), of which ussipa (lake sardine), chambo (a tilapia species) and uthaca were mentioned as the most commercially important, with the first two perceived to be increasing in abundance. However, there was generally no consensus between and within these sources of information regarding trends in the occurrence and abundance of

¹ Chilimila is a fishing method used to catch small fish that swim in huge numbers near the surface of the lake, are attracted by light and are usually active during the daytime (e.g. uthaca), or gather around illumination at night (e.g. lake sardine). For fishing lake sardines at night, a motorboat for fishing offshore, lamps and a proper fishing net are required.

other fish species. The lack of consensus in community perceptions is mainly because these phenomena vary seasonally and spatially, due to fish breeding and foraging movement.

Table 9: List of Fish Species Caught at LNR

Local Name (Yao and Nyanja)	Scientific Name
Ussipa	<i>Engraulicypris sardella</i>
Chambo	<i>Ureochromis mossambicus</i>
Uthaca	<i>Copadeochromis</i> sp
Kampango	<i>Bagnus meridionalis</i>
Mbalule	<i>Copadeochromis</i> sp
Mpassa	<i>Opsoridium microlepis</i>
Ngolokolo	<i>Snodontis nebulosus</i>
Ngua	<i>Copadeochromis</i> sp
Ningue	<i>Labeo cylindricus</i>
Nkomo	<i>Bathriclares nyassae</i>
Ntsene/Maximbu	<i>Rhamphochromis longiceps</i>
Ntsila	<i>Labeo mesops</i>
Sandjica	<i>Opsaridium mecrophalus</i>
Thamba	<i>Labeobarbus litamba</i>
Vibanje	Unknown

the first three species were the most mentioned by the people interviewed and the others species are listed in alphabetic order of local names

Conclusions:

- Total fish catches are increasing in the lake due to increasing fishing effort.
- There is no consistent scientific data on trends in fish species diversity.
- The lack of alternative livelihoods in the LNR threatens the sustainability of fishing, because it results in an increase in fishing effort.

Recommendations:

- WWF should coordinate with IIP and SDAE to identify socioeconomically sustainable mechanisms to limit fishing effort, and conduct research to determine the maximum permitted effort for different fishing methods.
- Aquatic biodiversity studies need to be conducted, in order to create a baseline for monitoring progress in conservation, including trends in fish diversity. This should be done in coordination with the IIP, which has vast experience in fisheries research and monitoring.

3.3 Findings: Gorongosa Restoration Project (GRP)

The following table summarizes the expected results by category.

Table 10: Summary of GRP Expected Results

GRP Summary	Expected Results		
	Tourism	Community	Environment
Exceeded	0	0	0
Met	0	1	5
Partially Met	1	5	8
Unmet	0	1	1
Total	1	7	14

3.3.1 Tourism-Related Expected Goals of the GRP

1. According to the Gorongosa Cooperative Agreement, December 2008, *"The Carr Foundation and its partners are working to ... reinvigorate the tourism industry in the region..."* This might be subsumed under Objective 6, *"Boost the economy in the greater area of Sofala province,"* and contribute to Poverty Reduction via *"Income generation through shared park revenues."* - Partially Met.

Awareness-raising concerning Gorongosa National Park (GNP) in both English and Portuguese, through the Gorongosa Media Project, is exemplary: frequent publications in major magazines, films and TV exposure in several countries, support by numerous celebrities, etc. In November 2011, the Visabeira Group was selected to manage the tourist camp at Chitengo and established the Girassol Gorongosa Lodge and Safari. During most of 2012, construction and renovation were underway, but some tourists were received. In 2013, Girassol Gorongosa Lodge and Safari, currently the only establishment in the Park, began receiving visitors in April, after the end of the rainy season. Tourist traffic in 2013 has been higher than in the corresponding months of 2012. However, civil unrest in the region is reducing traffic and revenues for the hotel and park. Other factors restricting tourism development include the low number of tourism operators, limited coverage of tourism roads, limited diversity of tourism activities, seasonality of tourism activities, and high transportation costs to access the park. Security measures for tourists are lacking (for example, there are no radio channels for safari tour guides or indemnity forms).

Note that there was only one tourism-related expected result of the GRP.

3.3.2 Community-Related Expected Goals of the GRP

2. Provide important new tools for communities living in and near the Park - Partially Met.

A health clinic and facilities for a nursery and teachers' residence were built in Vinho using GRP's own funds. A clinic was also built at Nhangu, using the 20% of park entrance fees, plus a contribution of GRP's own funds. Considering the low number of tourists and their short stay in the park, the 20% target seems rather inadequate to satisfy the needs of the poor surrounding communities. There are 16 communities in the buffer zone of the GNP, all with natural resource management committees established and with community rangers. Ninety percent of the women (n = 41) and 81% of the men (n = 48) who answered the question knew of the existence of community rangers involved in patrolling and environmental awareness campaigns to reduce uncontrolled fire and poaching in nearby forests. In the buffer zone, 67% of the total interviewed (n = 87) indicated that the increase in the number of animals is good for local communities. However, only 14% of them stated that the increase in animals is good because the communities receive 20% of tourism revenues.

Ninety-five percent of households interviewed in the buffer zone farm for their livelihood. In the buffer zone, only 24% of the 186 respondents who farm, and inside the park 7% of the 86 respondents who farm, had changed farming methods due to the restart of the GNP, with no sex differences. The main changes consist of abandonment of slash and burn agriculture, and adoption of conservation agriculture to increase agricultural productivity and reduce deforestation. Negative changes brought about by the reopening of the GNP, mentioned by only 4% of the respondents, include crop damage by animals, smaller plots, and greater distances to the plots. There were no discernable gender differences in the household perceptions of the impact of the restart of the GNP on farming practices.

Eighty-three percent and 94% of the respondents in the buffer zone (n = 196) and core park (n = 89), respectively, had not changed the way and the place where they cut trees for poles and firewood. The change made by the remaining respondents (17% and 6%, respectively) consisted of stopping the cutting of trees because it is prohibited (85% in the buffer zone and 75%

Figure 7: Health clinic built by the Gorongosa Restoration Project in the buffer zone of the Gorongosa National Park



in the core park). There were no notable sex differences in household perceptions of the impact of the restart of the GNP on the way and place people cut trees.

Sixty-five percent and 88% of the households answering the question in the buffer zone (n=125) and core park (n=68), respectively, indicated that local people are not involved in the conservation of nature, with no sex differences.

3. Boost the economy in the greater area of Sofala province – Partially Met.

Of the approximately 400 park employees, 95% were recruited in the districts surrounding the park, Chimoio and Beira. In the buffer zone, 42% of the respondents said there had been an increase in employment opportunities since the reopening of GNP, with no sex differences in respondents' perceptions. In the buffer zone, the sources of livelihood and income have increased according to 30% of the women (n = 97) and 25% of the male respondents (n = 99), but have not changed for 48% of the women and 60% of the men; whereas in the core park 76% of the respondents (n = 89) (regardless of sex) had not perceived any change in sources of livelihood and income since the launch of the GRP in 2004 (a date regarded by many as more relevant than the reopening of the GNP in 1995).

3.3.3 Environment-Related Expected Goals of the GRP

4. Rehabilitate the Gorongosa ecosystem, including the wildlife - Met.

5. Wildlife Sanctuary maintained and improved – Partially Met.

With the assistance of the project, a 6000 hectare fenced-in wildlife sanctuary was established and is being maintained and patrolled. However, it suffers from a certain lack of water for the animals, as natural pans are not holding water and artificial water sources are not functioning properly.

There has been a rapid increase in the size of wildlife populations, with an average increase of 33%, due to strengthened protection and re-introductions (Table 11 below); this does not apply to lions and other large predators.

Table 11: Wildlife Population Trends in the Gorongosa National Park*

Species	2007	2010	2012	% change: 2007 to 2012
Bushbuck	557	572	309	-44.5
Common Reedbuck	2347	2869	2119	-9.7
Elephant	187	165	240	28.3
Hartebeest	183	205	252	37.7
Hippopotamus	242	226	227	-6.2
Impala	280	408	584	108.6
Kudu	213	288	245	15.0
Sable	166	286	279	68.1
Warthog	1857	2550	2511	35.2
Waterbuck	2392	5660	4848	102.7

** The numbers indicate animals actually seen along census transects covering up to 25% of the central region of the park; total numbers are undoubtedly higher. The count in 2012 was taken early in the year, when the grass was still long and the leaf fall not yet complete. This resulted in diminished visibility, and hence the reduced numbers observed, particularly of common reedbuck. Source: PNG (2012).*

Poaching has been considerably reduced but remains a serious challenge (as is true of most parks in Africa), due to the large number of impoverished people living in and around the park who poach for subsistence and, in part, for commercial purposes. To illustrate, about 4,160 wire snares and 180 traps were removed, 31 homemade shotguns confiscated and 142 poachers captured and taken to court from January to mid-August 2013.

Effective patrolling is constrained by the terrain (only 30-40% of the park is accessible to park managers by vehicle), seasonal flood conditions, and limited radio coverage. The political situation is an additional constraint for patrolling and law enforcement. For example, the plan to recruit and train 40 new field rangers cannot be operationalized in the current situation, because it is believed that RENAMO would object to the presence of armed and uniformed rangers in and around the areas of Gorongosa Mountain it controls.

6. Conserve biological diversity of this ecologically important part of the world – Partially Met.

GNP has established monitoring systems for key biodiversity components, namely vegetation, large herbivores, fire regime, lions, and exotic plant species. The goal of the ecological monitoring is to obtain scientific data, based upon which management decisions may be taken.

Surveys of different taxa (amphibians, reptiles, fish, bats and birds) are on-going in the park, to document species richness and distribution. According to E. O. Wilson (2013), *"In the whole park, 398 bird species (of which about 250 are residents), 122 mammals, 34 reptiles, and 43 amphibians have been found. Probably tens of thousands of species of insects, arachnids, and other invertebrates await discovery."*

7. Protect vital ecological resources, including the mountain and its rainforest – Partially Met.

The project successfully lobbied for the inclusion of the terrain of Mount Gorongosa above 700 meters in the park in July 2010. This reduced the rate of degradation of the mountain forest. Native plant species were planted in 5461.5 ha of deforested areas between 2009 and 2013. However, some planted areas have been affected by uncontrolled fires. The current political situation seems to be changing local attitudes to conservation for the worse. For example, some nurseries were reportedly destroyed by RENAMO supporters; new areas are being deforested by shifting cultivation. The presence of RENAMO inhibits patrolling and environmental awareness campaigns in areas of the mountain above 700 m.

8. Reduction in the prevalence of uncontrolled fires – Partially Met.
9. Fire awareness, prevention and safety – Partially Met.

The park employs controlled cold burns during the early dry season to prevent hot fires, which are caused mainly by poachers, during the late dry season. Park rangers patrol to detect and fight fires. There is no consistent data to detect trends in the occurrence of uncontrolled fires, due to changes in monitoring methods. Ongoing research programs will help establish the role, impact, and desirable fire return period and balance of cold and hot fires in the Greater Gorongosa Ecosystem.

10. Species recovery monitored - Met.

11. Lions surveyed - Met.

12. Disease monitored and causes of diseases in animals clarified - Met.

13. Wildlife monitored and protected via in situ basic veterinary diagnostic capability - Met.

Species recovery has been monitored through aerial wildlife censuses conducted every two to three years since 2004. A lion research project has been underway since 2012, with the aim of improving the understanding of ecological and genetic factors influencing population dynamics. A veterinarian works part time for the park in disease monitoring; no diseases or parasites of concern for population dynamics have been detected to date. All buffalo imported into the park are certified TB-free.

14. Increased access to education for local students - Partially Met.

At this point, increased access to education has been facilitated by the fact that GNP and the community are building housing for teachers in the community of Vinho. This improves teacher attendance, ensures that they are available after school hours and reduces teacher tardiness, thus increasing access to education. However, to date there has been no reported investment in schools or teacher housing in other communities.

15. Conservation training for employees and local community members - Met.

In 2012, 107 GRP employees (92 men and 15 women) participated in conservation education classes/workshops at the CEC. The number of community members benefiting from environmental education at the CEC tripled in the past three years, from 1200 in 2010 to 4419 in 2012. Asked how accessible the park is to local people for visits, 61% of the 97 female respondents and 70% of the 99 males in the buffer zone said it was difficult; 30% and 19% of women and men, respectively, stated that access to the park was easy; and 9% and 11% of the women and men, respectively, said it was impossible. With no sex differences in the perceptions, out of 132 respondents in the buffer zone, 25% said the park was easily accessible to workers; for 14%, it was easily accessible to tourists; for 8%, to selected students and teachers; for 8%, to community leaders; and for 14%, to community members (only by invitation); the remaining 30% did not know who has easy access to the park.

There has been no direct measurement of learning or attitude change on the part of people visiting the CEC. However, 43% of all 285 people interviewed, without gender differences, said that they are involved in nature conservation, and only 24% of the 186 respondents who farm had changed farming practices, mainly due to the perceived prohibition of slash and burn agriculture. Ten percent of 196 people had changed the place of cutting trees, also due to the

perceived prohibition, but not necessarily to an understanding of the need to preserve the environment. Eleven of the 20 people interviewed who fish (55%) had changed the way they fish because they perceived that the park prohibits fishing or makes them limit the amount caught to self-consumption needs.

In partnership with district departments of education, the park has created environmental clubs in local schools. School pupils who are members of these clubs and teachers visit the CEC for environmental education courses, covering topics of ecology, environmental management, history of the park, etc. Between October 2011 and September 2012, 210 children took such courses at the park and 147 in the buffer zone, for a total of 357; the respective figures for adults (mostly teachers) were 38, 16 and 54. Such courses disseminate positive messages about conservation in their schools and communities, through dramatic presentations and lectures. When asked about the accessibility of the park to local people, 8% of 132 respondents mentioned that selected students and teachers visit the park regularly.

16. Capacity building for Mozambican scientists and local community members at the Community Education Center – Partially Met.

Rather than using the Community Education Center for this purpose, GNP is building a Science Center at Chitengo. In 2012, there were already 37 on-going research projects in the park. In 2012, 17 MS students (9 women and 8 men) from Eduardo Mondlane University were involved in monitoring exotic plant species in the park; and one male MS student is writing his dissertation on amphibians and reptiles of the Cheringoma plateau. The park encourages research by training institutions from abroad, in partnership with national institutions of higher education, to build the capacity of Mozambicans in relevant issues of biodiversity conservation, with a view to ensuring the long term sustainability of the GNP. The efforts of the GRP to attract researchers have contributed to an increase in the number of publications, from 10 prior to 2004 to more than 40 subsequently. In 2011, Tonga Torcida, a local young man, (<http://www.gorongosa.org/our-story/our-team/tonga-torcida>), participated in a BioBlitz with Professor E.O. Wilson; in 2012 he served as his assistant during the prominent biologist's second visit. He is now a scholarship recipient at a college in Tanzania.

Conclusions:

- To the degree that overburdening of the park administrator sometimes resulted in a failure to respond promptly to middle and lower level management, this problem should now be alleviated by the recent appointment of a separate director of community relations, relieving the administrator of that additional responsibility. Communication (both internal and external) and tourism have once again been joined together under one single coordinator; among other benefits, this should alleviate the tourism-related problems derived, in part, from the shifting of responsibility for this area from one person to another, and, in part, from a certain reluctance to communicate directly with the safari guide subcontractor formerly hired by the contractor.

- The activities of the Community Education Center, although useful in promoting good relationships between local communities and the park, are not yet resulting in the abandonment of destructive practices of natural resource utilization.
- Although Mount Gorongosa has been included in the park, little progress is being made in slowing down the rate of forest degradation there. The current political situation, combined with the lack of road coverage, which limits patrolling, contributes to the degradation of even more areas of natural forest. However, this is largely beyond the control of GNP management.
- High levels of poverty in and around the GNP are key challenges to address in order to achieve biodiversity conservation goals, because the most prevailing threats (poaching and slash and burn agriculture) are largely driven by poverty.
- The Community Education Center at GNP provides an important service in terms of conservation education for children, with a view to building a future generation that supports conservation. Changes in adult behavior cannot realistically be evaluated after just three years of CEC activities.

Recommendations:

- GRP should persist in its pursuit of good internal communication.
- Creating environmental clubs in the communities, integrating the beneficiaries of environmental education and strengthening the clubs with more training for environmental awareness campaigns are more likely to have an impact in terms of changing the attitudes and perceptions of local people in support of conservation than rotating the people who visit the CEC and increasing the numbers of visitors.
- The GNP should provide the natural resource management councils in the buffer zone with equipment and uniforms for effective patrolling, because the people involved in poaching come mostly from these communities.
- USAID and GRP should develop quantitative indicators to measure progress in the achievement of intended results.
- GNP should support farmers to increase agricultural productivity and reduce the rate of forest clearing, through sustainable farming and provision of improved seeds, drought-tolerant crops and fertilizers.
- While not necessarily important for animal movement, creation of a corridor along water reticulation between Mount Gorongosa and the core park may help ensure water quality and tree protection, and thus, reduced erosion.

To what extent were the expected results of the GRP met, with special emphasis around the area of community relations and capacity building?

Prerequisite to effective community relations is community members' awareness of the park. Survey data show that 91% the women (n = 97) and 82% of the men (n = 99) interviewed in the buffer zone knew that the management of the GNP had started up again after some time of abandonment, but 60% of the 196 men and women respondents had not heard of the Carr Foundation. Three percent of the 196 people interviewed in the buffer zone work for the park (this limited number may be due to fact the interviews took place during daylight hours). Asked who the park belongs to, 20% of 190 respondents said that the park belongs to Mr. Carr, or the whites that rented or bought the park. Other supposed owners of the park include the GRM and community (16%) and the park administrator (9.5%); 41% of 190 respondents did not know who was the owner. These responses may, to a certain degree, reflect a breakdown of communication.

With regard to internal capacity building, the organizational chart for the Gorongosa National Park has recently been revised. The GRM, represented by the Ministry of Tourism, is above the Oversight Committee, to which it appoints a representative (who works closely with the Chairman of the Carr Foundation, who is also a member of the Oversight Committee). Rather limited communication between senior managers and medium to low level staff was reported, fuelling resentment among some. The attractive newsletter, which used to be distributed both internally and externally, was suspended because of the high printing costs; now a less expensive version, for internal distribution only, is to be produced – which should keep the entire staff informed, and perhaps provide opportunities for feedback.

Fourteen of the expected results were partially achieved, six were achieved, and two were unmet (see Annex I for details). With regard to the 16 goals discussed above, ten were partially met and six were met. The lack of a quantitative system with consistent reporting on the same indicators sometimes makes it difficult to determine the degree of accomplishment.

Which were the major factors influencing the results of key aspects of effectiveness, such as activity design, implementation and M&E, that were achieved, and those that were not achieved?

Positive factors:

- The presence of an experienced management team.
- Collaboration with universities and research institutions overseas. In collaboration with the park management team, these institutions conduct research that contributes to a rapid build-up of a knowledge base of key components of the Greater Gorongosa Ecosystems, a foundation for science-based management.
- Adequate availability of resources for project activities. Staff from all relevant departments enjoy adequate availability of equipment (radios for field rangers, rifles,

GPS and specialized equipment), vehicles, materials and staff to implement project activities related to conservation management, research and monitoring. To be sure, the frequency of vehicle breakdowns is very high, due in part to the poor quality of the roads. The coverage of the current radio network needs expansion, for effective communication during patrolling and safari activities.

- Awareness raising. The Gorongosa Media Project has raised awareness of the park, which is a good step towards ecotourism development and financial sustainability.

Negative factors:

- Frequent replacement of staff. The GRP replaces highly skilled and experienced staff members (mainly expatriate staff whose contracts come to an end) in key departments (conservation and scientific services) every 2-3 years, on average. The result is a potential loss of institutional memory and lack of continuity of work plans promoting the achievement of project objectives.
- Lack of a park management plan approved by the Council of Ministers. Although park management can be effective without a management plan as long as key activities are implemented, and the availability of a management plan does not necessarily imply protected area effectiveness, in Mozambique it is a legal requirement (Forest and Wildlife Law, 10/99) that protected areas be managed in accordance with a management plan approved by the relevant ministry. Furthermore, the LTA states that the *"Park Management Team shall be obligated to elaborate a Management Plan for the Park and to update the Management Plan every 2 (two) years thereafter."* A management plan updated with this frequency would allow the incorporation of lessons learned from previous management actions. Although the current implementation of activities based on annual activity plans might permit certain flexibility in management priorities, when coupled with the frequent changes of senior staff it is prejudicial to continuity. An advanced draft management plan was under revision in August 2013.
- Communication among staff and with other stakeholders remains a problem, as mentioned in several interviews.
- Limited road coverage. Although the GNP will always have a relatively low road density because of the terrain and seasonal flooding conditions, there is space to improve the current road network. Only 30-40% of the park is accessible to managers by vehicle, and only 10% to tourists. This indicates that a large section of the park is not being patrolled effectively or being used for game-based tourism. The planned law enforcement strategy, with the park sub-divided among section rangers, will help reduce the constraints imposed by limited road coverage.
- Lack of insurance, an indemnity form, an evacuation plan and radios requested by the tourism operators.
- The many poor people living in and around the park. This leads to incompatible land use in the buffer zone as well as in parts of the core park, mainly through subsistence activities such as slash and burn agriculture, illegal fishing, poaching, and uncontrolled

fires associated with cultivation or poaching. This high accessibility and exposure of the park to threats means that more resources need to be allocated to strengthen law enforcement, environmental education and identification of alternative livelihoods.

Recommendations:

- The GRP should find resources to expand the road network of the GNP, in order to improve effectiveness in patrolling and law enforcement, prevention of uncontrolled fires, water monitoring and tourism activities
- Insurance, indemnity forms and radios should be provided, for the security of the tourists.
- USAID should offer to support PIPA (Participatory Impact Pathways Analysis) workshops at GNP, to help improve communication and achievement of results.

What negative and positive changes occurred?

Positive changes:

- Tourism: By developing tourism, GNP, with the support of the GRP, creates employment for local people (a positive result), and generates sustainable revenue for the Park. Although the Gorongosa Media Project receives no direct support from USAID, its dissemination of GRP-supported initiatives and successes raises awareness globally and locally.
- Conservation: By protecting Gorongosa's wildlife and landscapes, as well as its amazing array of small species, GNP/GRP makes sure future generations have a chance to experience this special place.
- Science: By studying how all the parts of Gorongosa's complex web of life fit together, GNP/GRP can make informed conservation and management decisions. In anticipation of the conclusion of the E.O. Wilson Science Center, important research contributions have already been made, both domestically and worldwide; such research will no doubt be even more effective once the physical facilities have been concluded.
- Community: By providing assistance to farmers, educational programs, and health care, GNP/GRP does help improve the well-being of local communities somewhat, thereby gaining a degree of support. Community development work coordinated by Mozambican professionals helps to counteract the perception that the park is controlled by outsiders (whites), that the animals from the park destroy their vegetable patches, and that the community perception of prohibition of more efficient slash and burn agriculture reduces their agricultural production.

Negative changes:

- Community perceptions that GNP was sold to white people.

- Increased crop damage by wildlife (mainly elephants), due in part to the fact that farmers are growing their crops closer to the boundaries of the park, and sometimes even within the boundaries.
- The perceived prohibition of slash and burn agriculture, which in the opinion of the farmers has reduced their agricultural production, without providing them alternative sources of livelihood and income. Note that according to GNP, there is no such prohibition, although the park does encourage communities to put a stop to this practice.
- The limited number of tourism operators. Only Girassol Gorongosa Lodge and Safari operates in the park and pays conservation contributions. To date the park has not been able to attract and maintain other tourism operators

To what extent has the assistance provided by the program contributed to these changes?

Most of the listed changes are attributed to USAID support because with USAID biodiversity grant the GRP purchased equipment, payment of salaries, rehabilitation of roads, construction of a wildlife sanctuary, construction of the CEC, and uniforms and rations for rangers. These inputs contributed to the achievement of the results. However, USAID biodiversity funds are mixed with funds from other sources such as the Carr Foundation in covering GRP operational costs, which makes it difficult to separate the contribution of USAID from the contributions of other donors.

Recommendations:

- GNP should proceed with plans to promote sustainable agriculture in the buffer zone. It is now launching a large agricultural intervention there, with the participation and advice of USAID.

To what extent has the Gorongosa National Park/Reserve been working towards financial sustainability?

The key question for the financial sustainability of Gorongosa National Park seems to be, at what point will tourism receipts be sufficient to defray the lion's share of costs? The LTA defines financial self-sustainability for the Park as:

"... the achieved condition whereby net revenues to the Park, absent of any contributions from MITUR or the Carr Foundation, are sufficient to support all the:

- *Recurring operating costs of the Park including staff salaries and training, facilities and infrastructures; and*
- *Maintenance and implementation of the Management Plan."*

Inadequate funding to cover operational costs results in dysfunctional protected areas, with loss and degradation of key biodiversity components, because it limits management effectiveness (Bruner et al., 2004). Management costs for GNP are high, due to its easy accessibility to commercial poachers and loggers, as well as to other people in need of natural resources, inside and in the surroundings of the park – which implies a need to increase investment in patrolling and law enforcement. Given the complexity of the Gorongosa ecosystem and the long period of complete abandonment, GNP still has establishment costs, such as stakeholder consultations and engagement, biological inventories and boundary demarcation. According to key respondents from different departments, equipment and staff to implement activity plans are adequate – which suggests that the amount spent may be sufficient, although it does come mostly from donors.

The total annual budget of the GRP is \$3.5 million to cover operational costs. In 2012, only 6.4% of this budget (USD 224,000) was derived from park entry fees and conservation contributions (GRP 2013). To date, the major source of revenue has been the pledge by the Carr Foundation to contribute \$24 million over a twenty year period; by December 2012, six years into that period, the Foundation had already contributed 75% of that amount. Factors contributing to the limited contribution of tourism to the payment of operation costs include the following, among others:

- The limited number of tourism operators. Only Girassol Gorongosa Lodge and Safari operates in the park and pays conservation contributions, under a contract signed in November 2011.
- The limited coverage of the roads.
- The limited diversity of tourism activities. This limits tourism experience and contributes to a short stay of tourists in the park (three days on the average).
- The seasonality of tourism activities. Due to the annual floods, the park is open to tourists only between 1st April and 15th December – which constrains income generation and financial sustainability.
- High transportation costs to access the park.

Addressing the first three above-mentioned factors, which are within the control of park management, may be expected to contribute to tourism revenue. It might be posited that with the complete tourism facilities now existing at Chitengo (except for the planned repairs to the water and sewage system) and the marketing successes of the Gorongosa Media Project, as well as the anticipated contracts with two establishments that are to operate in other areas of the Park, revenues may increase substantially, provided the political-military situation in the area can be resolved. However, financial sustainability is only a very long term prospect for the GNP.

Conclusions:

- GNP is currently not financially sustainable; its effectiveness in conservation and other areas is almost entirely due to donor support. Financial sustainability is a long term (20 year) goal, but there are no signs it is likely to be achieved in that period.

Recommendations:

- GNP and the Gorongosa Media Project should continue spreading awareness of the park, not only to increase tourist arrivals but also to attract ecotourism operators, all the while emphasizing the principle that ecotourism should not change the pristine conditions that distinguish GNP from parks with more developed tourism.
- The *"policy of full transparency of all Park financial matters"* established in the Agreement for the Long Term Administration of the National Park of Gorongosa (LTA) should be respected.
- The GRP should set up a "monitoring dashboard" where data from the various expected results can be kept systematically and which would allow consistent reporting to donors. In particular, data from water, fire and other monitoring systems can be summarized on the dashboard allowing tracking of progress and ease in reporting.
- In order to attain financial sustainability, park revenues should be increased through ecotourism and payment for ecosystem services. The GRP should find ways to attract ecotourism operators because currently there is none in the park.
- Increasing revenue should be accompanied by efforts to reduce management costs by strengthening partnerships with local communities in the context of co-management.

4 GENERAL CONCLUSIONS

- Ecotourism has been more successful in rural areas of Niassa province (mostly the Lake Niassa Reserve) and in Gorongosa (the core park) than in Northern urban areas, although the three beautiful hotels/lodges there are currently not economically profitable.
- The Strategic Plan for the Development of Tourism in Mozambique, 2004-2013 was correct in asserting that tourism cannot be separated from conservation, but failed to recognize that the need for conservation applies to urban areas and transportation infrastructure as well as to rural and protected areas, and that participatory management is needed throughout. Inasmuch as it shared this limited viewpoint, the Northern Mozambique Tourism Project was unable to produce most of its expected results, particularly in the more urban Cabo Delgado and Nampula provinces.
- The community-related expected results were the least met numerically, compared to the environmental and tourism-related expected results.

5 GENERAL RECOMMENDATIONS

- In future consultations with the Ministry of Tourism, and in the light of the findings of this evaluation, the LNR and GRP projects should be continued, in order to consolidate the progress being made in biodiversity conservation. In addition, the implementation of specific recommendations for these projects requires financial resources that have yet to be identified.
- For future implementation and USAID program design, a Participatory Impact Pathways Analysis (PIPA approach), widely employed by USAID in the Americas, is recommended, in order to identify and resolve communication and networking problems and their relationship to impact.
- In addition to annual reports submitted by implementing partners, USAID should conduct mid-term project evaluations to detect negative factors and changes to be corrected within the project lifetime.
- In parallel to funding biodiversity conservation and tourism project, USAID should consider funding education projects in the proximities of BioTur project areas. This would help prepare local people to benefit from development projects in the future, including biodiversity and tourism projects.
- USAID should consider funding baseline studies for key indicators, in preparation for project impact evaluation.

6 ANNEXES

ANNEX 1: WORKS CITED / REFERENCES

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ANNEX 2: EXPECTED RESULTS & RECOMMENDATIONS MATRIX

1. RESULTS – ARCO NORTE

Expected Results Arco Norte	Baseline Measure-	Baseline Date	Most recent data	Status by June 30, 2013	Explanation
1.1.1. Tourism Result The Northern Mozambique Arc established as a private public community stakeholder forum for tourism development and promotion.			Established in 2007, but no activity since 2011	Partially Met	The project created a regional federation of provincial associations and contributed to the inauguration of the National Hotel & Tourism Association of Mozambique. However, there were very limited activities aimed at strengthening the associations. As a result of lack of capacity building, the associations were active only during the lifetime of the project. The objectives of the project were not clear to tourism operators, and this raised unfounded expectations of financial support to invest in tourism infrastructure.
1.1.2. Tourism Result Hotel investments attracted.	No baseline	No baseline		Partially Met	According to Key Informants, the growing number of investments in hotels and lodges is a response to the demand for accommodation associated with the growth of the gas industry, and cannot be attributed to Arco Norte project activities.
1.1.3. Tourism Result Hotel rooms offering 3-5 star rating increased by 20% from current level of 300.	300	2006		Unmet	There was an increase of only 6% in the number of beds, from 6,173 beds in 2008 to 6,559 in 2009.
1.1.4. Tourism Result Attraction of tourists: International leisure tourist arrivals to the Northern Arc currently estimated at 10% of the national total, increased to 15%.	10% But 8% according to MITUR	2006 2008	10% in 2012	Unmet	During the financial crisis in 2008, the International Leisure tourists dropped to 8% and rebounded to 10% in 2012. The number of international hotel guests is a poor proxy for the number of international leisure tourists, since it includes business travelers and others.
1.1.5. Tourism Result An average of 35,000 tourists were to visit the North each year, with an average length of stay of 7 days.	21 110	2008	23,959 in 2012	Unmet	The doubling of the regional percentage between 2011 and 2012 apparently reflects mainly the surge in gas-related international clients in Cabo Delgado province.
1.1.6. Tourism Result	16-34%	2008	21-30% in 2012	Unmet	The increase was 13% (for the higher figure) or 31% (for the lower figure).

Expected Results Arco Norte	Baseline Measure-	Baseline Date	Most recent data	Status by June 30, 2013	Explanation
Average hotel occupancies were projected to increase by 35% or 50%.					
1.1.7. Tourism Result Mozambique's international tourism receipts increased by 50%, from the present level of \$106 million in tourism generated income for the country.	\$106 million	2006	\$198 Million in 2010; \$248 million in 2012	Exceeded	Total increase from baseline to 2010 (the last year of NMTP): 86%. However, the figures are not exclusively or perhaps even primarily, due to leisure tourism.
1.1.8. Tourism Result Quality of services in hotels, restaurants, attractions improved and revenues increased by 15%.	No baseline			Unmet	Although training took place during the project, key informants felt that poor service quality (kitchen, housekeeping, cleaning, etc.) remains a serious constraint for tourism development in northern Mozambique.
1.1.9. Tourism Result Tourism related small, medium and micro enterprises created.				Unmet	The project contributed to the improvement of the quality of tourism services by training four trainers of tourism operators in Cabo Delgado. However, the lack of credit schemes for small and medium enterprises impedes the establishment of small businesses related to tourism.
1.2.1. Community Result Significant domestic tourism travel by middle and upper income Mozambicans will be generated to the Arc, redistributing income to rural areas, and promoting a sense of understanding and national unity.	22 213	2008	24,525 in 2012	Partially Met	Domestic hotel guests in the Northern Arc increased 10.4%, from 22,213 in 2008 to 24,525 in 2012. However, a nationwide sample of members of 10,700 households, interviewed between September 2008 and August 2009 in urban and rural areas, found that only 5.7% of domestic travel was for vacations and leisure.
1.2.2. Community Result Ensure effective stewardship and participation of local communities in conservation and tourism industry development.				Partially Met	According to Key Informants, COGEP's and the like were established in small communities in Niassa province, but are normally not established in cities, nor do municipalities such as Pemba appear to be particularly concerned with the matter.
1.3.1. Environment Result Lake Niassa, one of the world's richest aquatic ecosystems, declared a protected marine park to preserve biodiversity in line with environmental standards.			2011	Met	Lake Niassa Reserve declared in 2011 (Decree No 59/2011 of 17th November).

Expected Results Arco Norte	Baseline Measure-	Baseline Date	Most recent data	Status by June 30, 2013	Explanation
1.3.2. Environment Result Pemba Bay Conservancy established by private, public, and civil society organizations with an interest in the bay. Conservancy will develop and enforce regulations and land use plans.				Unmet	The conservancy for Pemba Bay exists only as a legal document. The objective of conserving the largest inland bay as a tourism attraction due to its richness in marine species including whales, dolphins, was not achieved. There is no management plan to guide the implementation of conservation activities
1.3.3. Environment Result Enhance biodiversity conservation and management of key environmental assets in Northern Mozambique.				Unmet	Progress on LNR as reported above, minimal achievement of the Pemba Bay Conservancy and little other progress.
1.3.4. Environment Result Scientific studies on Pemba Bay, coastal conservation in priority investment areas (PIAs) and the Lake Niassa Marine Reserve establish data and knowledge base for conservation.				Partially Met	According to key informants studies were conducted by marine biologists of the Eduardo Mondlane University in Pemba Bay as the first step for the preparation of the management plan, but there was no follow up
1.3.5. Environment Result City and town plans revised and land and townscapes in PIAs of destination communities protected and enhanced.				Partially Met	The lack of detailed urbanization plans (showing location of roads, water supply systems, sewage management, etc.) contributed to the delay in the implementation of ZTI's. However, according to key informants, a detailed map for the city of Pemba is being finalized, which will potentially increase the attractiveness of that ZTI to investors.

1.2. RECOMMENDATIONS – ARCO NORTE

Expected Result	Recommendation
Quality of services in hotels, restaurants, attractions improved and revenues increased by 15%.	Future projects should address the need of improving service quality as a step towards attracting tourists and increase the length of stay.
Hotel rooms offering 3-5 star rating increased by 20% from current level of 300.	Future projects should use the same indicators employed by the government or counterpart organizations.

2. RESULTS – LAKE NIASSA RESERVE

Expected Results LNR	Baseline Measure	Baseline Date	Most recent data	Status by June 30, 2013	Explanation
2.1.1. Tourism Result Within a year of LNR declaration, tourism investors submit intentions for 60% of tourism sites identified.	No ZTI's		A ZTI was legally established in Chiuanga (Metangula Municipality), in Niassa province, in 2010.	Partially Met	Tourism sites (ZTI's) were identified but so far potential investors have shown no interest. ZTI's that were approved by decree of the Council of Ministers included Chiuanga (Municipality of Metangula), in Niassa Province.
2.2.1. Community Result Increasing levels of community involvement in LNR resource management activities as well as the developing tourist industry.	5 CCP's and 22 Community Rangers	2008	21 CCP's in 2013 and 39 rangers in 2013.	Met	Widespread community consultations and support for the LNR are evident. Seven communities initially excluded from the reserve (Malango, Ngolongue, Mchepa, Nagala, Micundi, Meluluca-sede and Lussefa) requested their inclusion, so reserve limits had to be extended southward to the Lussefa River and northward to the Utchesse River. The number of CCP's increased from 5 in 2008 to 21 in 2013, and the number of community rangers from 22 in 2008 to 39 in 2011. Seventy five percent of 142 respondents at the household level confirmed community involvement in conservation. There was community involvement in the preparation of the management plan. Some collaboration with Nkwichi Lodge and Mbuna Bay Lodge, and some locally recruited employees.
2.2.2. Community Result 80% of the affected communities establish a ranger team composed of at least 10 men and women volunteers, to help manage community resources; community rangers participate in patrolling and management activities; 90% of	No Community Rangers	2006	17 out of 20 communities (85%) have ranger teams, for a total of 39 rangers, but all are men.	Exceeded	All rangers were nominated by communities and at least 56% of the 256 interviewed households know someone who is a ranger. Rangers participate in patrolling and environmental awareness, but have no authority to fine for illegal fishing or destructive methods. All rangers were nominated by local communities.

communities nominate a LNR ranger candidate who becomes a LNR ranger.					
2.3.1. Environmental Result Lake Niassa Reserve is declared on the basis of well-prepared documents and widespread community support.			LNR was established in 2011.	Met	Pursuant to the environmental preservation objectives of the Arco Norte project, documents were prepared and received in Maputo in June 2009. The establishment of the Reserve was delayed by different opinions among ministries regarding the management of the Lake, with MITUR and MICOA supporting the establishment of the Reserve and the Ministry of Fisheries concerned about potential impacts of the reserve on fisheries yield.
2.3.2. Environmental Result Communities via their guard network are able to reduce damage to their aquatic resources.	No baseline data			Partially Met	For fishing, currently less use is being made of mosquito nets, trawling using small mesh nets, and poison in the rivers. In August 2013, a fishing supplies shop opened in Metangula, for the first time making fishing nets of different sizes readily available in the southern part of the lake. Recently, a mosquito net was taken from a fisherman in Nhangu and burned. Four fisheries associations were given fishing nets and boats by WWF, with a view to promoting a sustainable increase in fishing yields.
2.3.3. Environmental Result Ecosystem protection through-out the park and livelihoods program design in adjacent communities begin ASAP to halt erosion/ destruction of habitats, species populations, and human livelihoods.			Evidence of ecosystem protection, better species protection and improved livelihoods.	Met	Twenty One Community Fisheries Councils, with a total of 226 CCP members, and 10 Fisheries Associations, with a total of 100 associated fishermen, were created, all contributing to environmental education and patrolling. While progress has been made toward halting erosion and destruction of habitats and species populations, and promotion of human livelihoods, much remains to be done. Overall, there has been a 40% increase in the amount of time spent by fishermen to catch the same amount of fish (declining Catch per Unit Effort – CPUE). Data from IIP indicate an increase in total of catches of

					<p>22% between 2009 and 2010 and 24% increase in 2011. This is a result of increases in fishing effort. CPUE declined between 20% and 51% for 3 of the 5 fishing methods used, suggesting a decline in fish abundance. However, there has been an increase in CPUE for lake sardine - ussipa (<i>Engraulicypris sardella</i>), due to increasing use of the chilimila method, resulting in an increase of 47% in CPUE for this method between 2010 and 2011. 68% of the 115 household respondents said that the number of fishermen increased in the last few years and 70% said that there has been a decrease in fish catches, so greater effort is required. However, the perception of 38% of the 256 households is that sources of livelihood are increasing in the area.</p>
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2.2. RECOMMENDATIONS – LAKE NIASSA RESERVE

Expected Result	Recommendation
<p>Lake Niassa Reserve is declared on the basis of well-prepared documents and widespread community support.</p>	<p>The reserve management plan needs to be approved and a management entity established to implement the plan, which includes measures that will potentially increase fish catches, such the protection of breeding sites (sanctuaries) and the prohibition of fishing out of season. The completion and approval of the management plan is being delayed by disagreement regarding the institution to be responsible for LNR management. The options being discussed are: a) management by MITUR/ANAC or b) a joint management board including MITUR/ANAC and the Ministry of Fisheries.</p>
<p>Communities via their guard network are able to reduce damage to their aquatic resources.</p>	<p>Community Fisheries Councils (CCP's) and community rangers need to be supported to continue disseminating messages of sustainable fishing and patrolling, respectively. The motivation of community rangers is declining somewhat, due to a lack of transportation, weapons, legal authority, and sometimes (in Metangula), uniforms.</p>

3. RESULTS – GORONGOSA RESTORATION PROJECT

Expected Results GRP	Baseline Measure-	Base-line Date	Most recent data	Status by June 30, 2013	Explanation
3.1.1 Community Result Increase access to health, education services, water and other social services as a result of shared park revenues and Human Development activities.	No baseline		2 clinics, teacher residences and nurseries built, thereby increasing access for a few communities.	Partially Met	According to key informants and to interviewed households, park revenues shared with communities in the buffer zone contributed to the building of two clinics (one in Vinho community and one in Nhangu), residences for teachers and nurseries. However, this may be considered practically insignificant, considering the large number of communities and the size of the human population. 41% (n=196) of the households interviewed in the buffer zone say that living conditions have improved since the Carr Foundation and USAID started work via the GRP.
3.2.2. Tourism Income generation through shared park revenues and diversified, sustainable non-timber forest products extraction.	No baseline		20% of park entry fees flows to communities.	Partially Met	While 20% appears to be large, the base is very small, because there are constraints on the arrivals of tourists (high transportation costs, a limited road network and accommodation, malaria, political unrest).
3.1.2 Community Result Sustainable skills developed through training in organic agriculture, honey production, and chicken farming.	No baseline		Some evidence of beekeeping, and organic farming, but not of poultry farming.	Partially Met	14% of interviewed households who farm (n=186) said they changed farming practices, and mostly to not using slash and burn agriculture. At least 74 community members were trained in beekeeping, and 84 beehives were distributed between 2010 and 2011; in 2011, 70 kg of honey was harvested and commercialized. There are no evidence of chicken farming promoted by the GRP. Some organic produce is delivered for consumption by the hotel guests.
3.1.3 Community Result Improved capacity of community representation bodies to participate in natural resources co-management.	No NMRCs in any community	2007	All 16 communities in the buffer zone involved	Partially Met	According to key informants and interviewed households, Natural Resource Management Councils were created in all 16 communities in the buffer zone, each with community rangers involved in patrolling and community. These community NMRC's are reportedly reducing threats to biodiversity, such as uncontrolled fires and poaching.

Expected Results GRP	Baseline Measure-	Base-line Date	Most recent data	Status by June 30, 2013	Explanation
3.1.4 Community Result Increased access to education for local students.	No baseline		Houses built for teachers in 1 community	Partially Met	Having teachers living on site tends to increase access as teachers do not struggle to travel to work across difficult roads and in bad weather. They are also more available after hours and are at work on time.
3.1.5 Community Result Conservation training for employees and local community members.	1200 CEC visitors and beneficiaries of environmental education	2010	4419 CEC visitors and beneficiaries of environmental education. 109 GRP employees participated in conservation education classes / workshops at the CEC Between October 2011 and September 2012, 357 children and 54 adults took part in environmental clubs.	Met	The park promotes environmental education at the Community Education Center (CEC) for community members, school pupils, teachers, government officials, police, etc., as a strategy to create positive attitudes and support for conservation. The number of CEC visitors and beneficiaries of environmental education has tripled in the last three years, from 1200 in 2010 to 4419 in 2012. There is no direct measurement of learning or attitude change. However, less than 25% of interviewed households changed the way or place of farming, cutting trees and fishing, and most of the changes are due to perceived prohibition by the park, and do not necessarily reflect a voluntary change of attitude. The environmental education team created environmental clubs in the schools located in the buffer zone. The clubs visit the CEC and receive training in topics such as ecology, environmental conservation, reforestation projects, history of the park, plant and animal identification.
3.1.6 Community Result Capacity building for Mozambican scientists and local community members at the Community Education Center.	10 publications	2004	40 publications in 2012 17 Mozambican MSc students involved in 2012/3.	Partially Met	The park encourages research by training institutions from abroad, in partnership with national institutions of higher education, to build the capacity of Mozambicans in relevant issues of biodiversity conservation, with a view to ensuring the long term sustainability of the GNP. However, in addition to encourage, the GRP should support the partnership. 16 Mozambican MSc students from Eduardo Mondlane

Expected Results GRP	Baseline Measure-	Base-line Date	Most recent data	Status by June 30, 2013	Explanation
			4 full time tertiary students from community.		<p>University monitored exotic plant species in 2012 and one MSc student is writing a thesis on the amphibians and reptiles of the Cheringoma plateau. The efforts by GRP to attract researchers have contributed to an increase in the number of publications, from 10 prior to 2004 to more than 40 in 2012.</p> <p>4 survey respondents said they were full time students. One young man is enrolled in wildlife college in Tanzania.</p>
3.1.7 Community Result Environmentally conscious water abstraction for human use created outside Gorongosa National Park.		2009	No data reported to USAID since 2011	Unmet	The progressive destruction of riparian vegetation, particularly on the slopes of Gorongosa Mountain, threatens the availability of water for human consumption downstream. There is a gap between the mountain and the core park which affects the river watershed. In addition, maintaining the integrity of riparian vegetation will help establish ecological corridors and connectivity between Mount Gorongosa and core park, which is essential for the adaptation of biodiversity to climate change
3.3.2 Environmental Result Wildlife monitored and protected via <i>in situ</i> basic veterinary diagnostic capability.	GNP wildlife census data of 2007	2007	GNP wildlife census report - 2012	Met	According to GNP reports and also key informant interviews, large herbivores have been monitored through aerial counts conducted every two years since 2007, to detect trends in abundance and distribution. GRP always had a veterinarian responsible for disease surveillance; there are no reports of diseases of concern for the dynamics of wildlife populations.
3.3.3 Environmental Result Lions surveyed.	A lion survey conducted	2009	A long term lion study began in 2012.	Met	The aim of the research project is to improve the understanding of how factors like prey composition and abundance, genetics, disease, and human impacts (including illegal hunting and park boundary effects) might be affecting the growth of the lion population. The study includes the deployment of collars to monitor movements and ground track lion prides. It is sustainable, as the principal investigator is GNP staff.

Expected Results GRP	Baseline Measure-	Base-line Date	Most recent data	Status by June 30, 2013	Explanation
3.3.4 Environmental Result Wildlife sanctuary maintained and improved.	A 6000 ha sanctuary was built and fully fenced for the reintroduction of animals.	2006/ 2007	Maintenance is a challenge, no improvements.	Partially Met	<p>Maintenance is a challenge. Currently there is a need to supply animals with water daily, because natural pans do not hold water into the late dry season and artificial water points are not functional. In addition, fence wires are being stolen by poachers to make snares.</p> <p>The park responds to this by increasing the number of rangers in the sanctuary, which has a higher patrolling rate and protection effort than the rest of the park. As a result, the sanctuary has a higher density of non-reintroduced animals than other parts of the park.</p>
3.3.5 Environmental Result Disease monitored and causes of diseases in animals clarified.	Diseases monitored and records kept from 2009	2009	A veterinarian works part time for the park. There are no records of diseases of concern.	Met	<p>Specific attention was paid to ensure the re-introduction of disease-free animals, particularly Bovine Tuberculosis in Buffalo (BTB).</p> <p>Periodically the GNP Vet and the Ministry of Agriculture take samples to establish disease prevalence. There is a small lab established at GNP in 2009 which facilitates this process.</p>
3.3.6 Environmental Result Species recovery monitored.	Baseline of species monitored	2007	33% improvement between 2007 and 2012	Met	<p>The average increase in population size of eleven large herbivore species was 33% (15 - 82%) between 2007 and 2012.</p> <p>The recovery of wildlife species has been monitored by aerial census done every two years since 2004.</p>
3.3.7 Environmental Result Increased numbers of wildlife.	Annual census with baseline in 2007.	2007	GNP wildlife census report – 2012	Met	<p>According to the GNP wildlife census report, almost all counted wildlife species show positive trends, as a result of strengthened protection.</p>
3.3.8 Environmental Result Restored forests.	No Baseline		Planted 1.6m trees in 5,461.5 ha on the Mountain, but planted areas are being lost due to	Partially Met	<p>According to GNP reports and key informants, nurseries have been established and saplings of native tree species planted for the reforestation of Mount Gorongosa. However, some planted areas have been lost to uncontrolled fires. The presence of the Renamo leader and the current political situation have negatively affected people's attitudes: some nurseries have been reportedly destroyed by Renamo</p>

Expected Results GRP	Baseline Measure-	Base-line Date	Most recent data	Status by June 30, 2013	Explanation
			uncontrolled fires.		supporters. Additionally, slash and burn cultivation is affecting new areas of natural forest.
3.3.9 Environmental Result. Erosion control.	No Baseline	2009	While trees have been planted, there are new areas simultaneously being cleared.	Partially Met	The GRP planted native trees for river and stream bank protection. However, similar to other reforestation activities, progress has been minor in controlling erosion as new areas are being cleared. In addition, the GRP, through the CEC, trained local communities in conservation agriculture and sustainable land management.
3.3.10 Environmental Result. Fire awareness, prevention, and safety.	No Baseline	2009	Fire prevention remains a challenge and requires more research and better road infrastructure.	Partially Met	Fire prevention was first reported in 2009, and is reported periodically with most recent report in 2013. According to key informants, Natural Resource Management Councils and their rangers are involved in environmental education and patrolling. Park rangers and managers apply cold fires to control the frequency, extent and distribution of hot fires and firefighting teams are always on the alert to intervene. However, the use of controlled cold burns, the effectiveness of patrolling against uncontrolled fires and the intervention of fire fighters are all constrained by the limited road network. 14% (N=186) of households surveyed reported that they had been given information and now did not use slash and burn agriculture.
3.3.11 Environmental Result. Ensured availability of enough natural water sources to sustain wildlife populations.	Baseline hydrographic monitoring network established.	2010	Water provision in the sanctuary remains a challenge during the dry season, with no permanent and sustainable solution	Partially Met	The hydrographic monitoring network in place since 2010 will contribute to the achievement of this objective by monitoring the quantity of water flowing from the rivers to Lake Urema and floodplain where most water-dependent wildlife species concentrate during the dry season. Water provision in the sanctuary remains a challenge during the dry season, with no permanent and sustainable solution in sight for several years; currently containers of water are taken to the sanctuary daily. Water for wildlife is available in the Rivers flowing from Gorongosa Mountain to Lake Urema, in the Urema and Pungue Rivers. During the wet season seasonal pans also provide adequate water for wildlife.

Expected Results GRP	Baseline Measure-	Base-line Date	Most recent data	Status by June 30, 2013	Explanation
3.3.12 Environmental Result Reduced turbidity of rivers.		2009	No data reported to USAID since 2011	Unmet	Despite efforts to reforest Mountain Gorongosa, including riparian vegetation, there is progressive cultivation in the river banks, contributing to water turbidity. Illegal gold mining also contributes to turbidity.
3.3.13 Environmental Result Natural flow regimes maintained in the sub-catchments.			Last data reported in 2011, 2012 report says monitoring instruments installed on main rivers	Partially met	Water monitoring systems focus on the main rivers that drain into the GNP and Lake Urema, rather than sub-catchments.
3.3.14 Environmental Result Reduced water pollution.		2009	Some pollution caused by illegal mining	Partially met	Water monitoring system in place includes measurements of water quality. Gold mining is a potential cause of pollution. Rangers patrol against artisanal mining, but difficult access by road and the presence of Renamo soldiers in the proximities of mining areas prevent effective patrolling. Legal mining may not be a major threat if well-managed. On January 9, 2013, Brigadier Gold Ltd. signed a Letter of Intent to acquire the Tsiquire Gold Project in Mozambique. The Tsiquire-Gorongosa area is located near Vila Gorongosa, upstream from the core park.
3.3.15 Environmental Result. Monitored quantitative and qualitative indicators of water in the ecosystem.	2009	2009		Partially Met	Water monitoring points were established in critical areas for the Greater Gorongosa Ecosystem to monitor water quality and quantity. Data loggers were installed in the rivers that drain into the GNP and Lake Urema (e.g. the Vunduze and Nhandugue rivers), as well as in shallow groundwater monitoring points in the floodplain surrounding Lake Urema. The expansion of the water monitoring system is constrained by the limited road network.

3.1. RECOMMENDATIONS – GORONGOSA RESTORATION PROJECT

Expected Result	Recommendation
Increase access to health, education services, water and other social services as a result of shared park revenues and Human Development activities.	Complementary funds need to be identified, to increase the coverage of social infrastructure in the communities. The 20% of park entry fees allocated to local communities is inadequate to meet the needs of the communities.
Sustainable skills developed through training in organic agriculture, honey production, and chicken farming.	Future projects should address the need for increasing agricultural productivity in the buffer zone through sustainable farming, to reduce the rate of forest clearing without negatively impacting livelihoods. Options include the supply of seeds for improved crop varieties, drought resistant crops and fertilizers.
Improved capacity of community representation bodies to participate in natural resources co-management.	NRMC's (Natural Resource Management Councils) are an important partner for the GRP in the management of the GNP. Therefore, in addition to creating NRMC's, GRP should invest in strengthening these organizations through training and provision of basic equipment for effective patrolling, such as radios for communication with the park rangers.
Increased access to education for local students.	This result needs to be made more explicit for future projects, does it mean improved buildings, transportation, teacher housing, etc.?
Capacity building for Mozambican scientists and local community members at the Community Education Center.	The LTA states that Carr Foundation agrees to train, strengthen and retain high-level technical and scientific skilled personnel in Mozambique. Mozambican students have been involved in some park activities on the basis of personal relationships between park staff and university lecturers. However, the interaction between overseas researchers and Mozambican students, which would be one option for the GRP to contribute to capacity building, is weak and sporadic. In addition, reports and publications about the GNP produced by overseas researcher are not disseminated to national universities, research institutions and libraries, for students to learn about the park. In general, the contribution of the GRP in building the scientific capacity of Mozambicans is negligible.
Wildlife sanctuary maintained and improved.	In December 2012 the management team has taken the decision to reduce the size of the sanctuary to about 2,000 hectares to reduce maintenance costs, while allowing animals to colonize the park and improve the quality of game viewing. However, due to other priorities this has not been carried out to date. Therefore, maintenance costs of the sanctuary remain high. The management team should consider the implementation of the decision taken as a priority. However, releasing animals requires improving safety outside the sanctuary by increasing the number of rangers, their distribution, and equipment for effective patrolling.
Increased numbers of wildlife.	The living conditions of the rangers need to be improved by building outposts using conventional building materials.
Fire awareness, prevention, and safety.	Future projects should prioritize the expansion of the road network, which is currently a constraint for the effective implementation of management and monitoring activities.
Natural flow regimes maintained in the sub-catchments.	All parties need to be made aware of the vital role of the preservation of Mount Gorongosa in ensuring proper irrigation of the core park.
Reduced water pollution.	The government should ensure that legal gold mining is not a threat to the quality of the water in GNP and the surrounding areas.

ANNEX 3: EVALUATION METHODS AND LIMITATIONS

To evaluate the effectiveness, impact and sustainability of biodiversity conservation and tourism activities, the team has used a triple bottom line approach (Norman and MacDonald, 2004; Wood, 2004), encompassing biodiversity conservation, economic development and community benefits.

Table 1: Evaluation Questions, in Synthesis

DAC Components	Overarching Evaluation Questions
Effectiveness	To what extent were the expected results of each activity met, with special emphasis around the area of community relations and capacity building? Which were the major factors influencing the results of key aspects of effectiveness, such as activity design, implementation and M&E that were achieved and those that were not achieved? <i>Additional Question:</i> What key lessons should be learned from the programs' strengths or weaknesses and what are the implications/ recommendations for future implementation and for USAID program design?
Impact	What negative and positive changes occurred and to what extent has the assistance provided by these three programs <u>contributed</u> to these changes?
Sustainability	Regarding the Lake Niassa Reserve: Is the growing catch in the Lake Niassa Reserve sustainable? What are the effects on biodiversity and fish diversity? Regarding the Gorongosa Restoration Project: To what extent has the Gorongosa National Park/Reserve been working towards financial sustainability? Regarding the Arco Norte Tourism Project: Are any of the changes reported by the project still present/active?

Evaluation Approach and Methodology

A two-pronged methodology was employed: 1) key informant interviews and group interviews, using or guided by appropriate interview schedules and complemented by desk review of available documents; 2) survey research conducted on samples of local communities in the Lake Niassa Reserve and the Gorongosa National Park and respective buffer zones. Longitudinal data and reports issued prior to or in the early stages of implementation were, whenever possible, collected to serve as baselines for comparison. To fill in gaps in the availability of baseline information, community members and project staff were questioned regarding what changes the projects have brought.

Data Collection Methods & Indicators

To a certain degree, the same key questions relevant to each project were asked to different categories of respondents, permitting triangulation of information collected from different sources.

Community Interviews, Sampling Procedures

The number and location of communities relevant for the scope of work were identified through consultations with the implementing partners of GRP and LNR. The evaluation team used the same definition of "community" employed by GRP and LNR, which is a variable number of nearby villages with similar social conditions. Variables potentially influencing community perceptions regarding the effectiveness and impacts of the project were considered in the selection of communities, to minimize selection bias and ensure that interviewed households represent the perceptions of different communities. To determine the minimum number of households to interview in each study area for a 95% confidence interval, we initially used the formula suggested by Lemeshow, Hosmer, Klar & Lawanga (1990), apud Aday & Cornelius (2006):

$$n = \frac{z^2_{1-\alpha/2} P(1-P)}{d^2} \qquad n = \frac{1.96^2 (.50)(.50)}{.06^2} = 267$$

where:

n = minimum sample size for the required precision

P = estimated proportion of affirmative responses to each question (P=0.5)

d = required precision (0.06)

z = the standard error for a two-tailed test, in this case with an alpha level of .05 (a probability of .025 that we will conclude that the sample value is within the confidence interval when it is in fact below it, and of .025 that we will conclude that it is within the confidence interval when it is in fact above it). Here we say that the confidence interval is 95%.

The estimated population at the LNR is 39,900 individuals, while at GNP and buffer zone it is +/-200,000 individuals. Assuming an average of five individuals per household (MAE 2005a, MAE 2005b, MAE 2005c and MAE 2005d), we get 7,980 households at LNR and 40,000 households at GNP. Then we may apply a finite population correction (fpc), using the following formula from Aday & Cornelius (2006).

$$n_{adj} = n(1+(n-1)/N)$$

Based on the required adjusted sample size, n_{adj} is 258 for LNR and 265 for GNP. The actual sample sizes were 256 and 285, respectively. Thus, the number of interviews fell two short of n_{adj} at LNR – an insignificant amount. Note that the actual precision for LNR, with 50% answering a question in the affirmative, is 6.03%; if 45% answer in the affirmative (or in the negative), the precision is 6.0%.

In other words, assuming that our sample is representative of the population, if our sample data show that 50% of the respondents say yes to a certain question, we may be 95% certain that the true percentage in the population is between 44% and 56%.

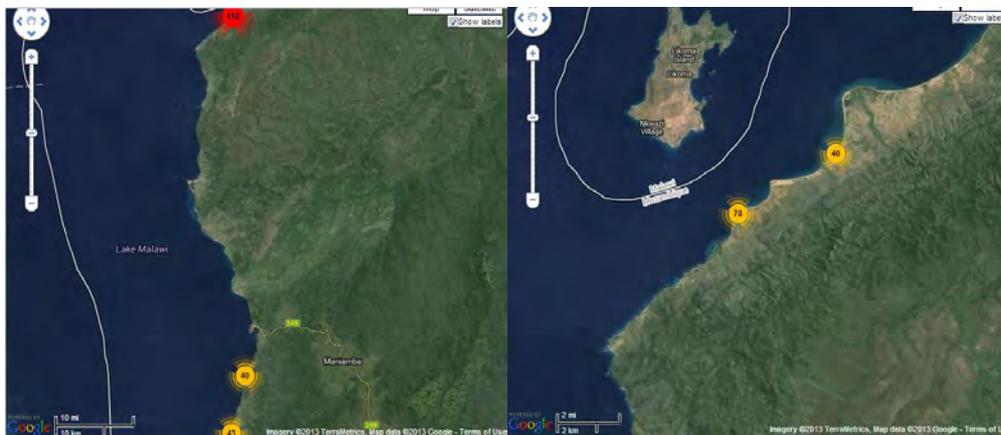


Figure 1: Location of Households Interviewed in the Lake Niassa Reserve

For LNR, geographical location was taken into account, in order to ensure that communities were sampled in the south, center and north. Within each region, specific variables differentiating communities, and hence considered in the sampling design, were the presence of saving and credit groups (PCR) and of fishing associations. The communities included in the evaluation are shown in Table 5. The central region of the LNR was less well represented in the sample, due to the difficult access associated with a lack of roads in this predominantly mountainous area.

Table 2: Households Interviewed in Different Communities in the Lake Niassa Reserve

Community name	Region of the Reserve	PCR	Fishing Association	Date of Interview	Households Sampled
Chiunganga	Center	Absent	Present	26/08/2013	45
Ngolongue	South	Absent	Absent	27/08/2013	40
Meluluca	South	Present	Present	27/08/2013	43
Cobue-Sede	North	Present	Present	28/08/2013	85
Chilola	North	Absent	Absent	29/08/2013	21
Chicaia	North	Present	Absent	29/08/2013	22
Total					256

Age Ratio: 18-34:123; Age 35+:133. Gender Ratio: Male: 137; Female 119

For the Gorongosa Restoration Project (GRP), specific variables concerned location in the core park (inside) or buffer zone (outside). While inside the park the interventions of park management are restricted to environmental awareness campaigns, in the buffer zone, the park promotes both environmental awareness and socioeconomic development (e.g. clinics, schools, etc.). Differences in the degree of park interventions among communities in the buffer zone were also taken into account in the sampling design. Despite their relevance for the evaluation of the GRP, communities living in the north of the GNP were not included in the sample due to lack of security associated with the tense political-military situation between Renamo and the Government.

**Figure 2: Location of Households Interviewed inside and around Gorongosa National Park****Table 3: Households Interviewed in Communities in and around Gorongosa National Park**

Community Name	District	Location	Level of Park Intervention	Date of Interview	Households Interviewed
Nhambita	Gorongosa	Buffer zone	High*	13/08/2013 & 14/08/2013	57
Nhanguo	Gorongosa	Buffer zone	High*	15/08/2013	45
Vinho	Nhamatanda	Buffer zone	High*	16/08/2013	42
Nhampoca	Nhamatanda	Buffer zone	Low**	17/08/2013	52
Mueredzi	Muanza	Core park	High**	18/08/2013	41
Ngoinha	Muanza	Core park	Low**	19/08/2013	48
Total					285

Age Ratio; 18-34: 130; 35+: 155. Gender Ratio; Male: 140; Female: 145

**High: includes creation of natural resource management committees; allocation of 20% of tourism revenue; building of socioeconomic infrastructure such as clinics, schools and water pumps; environmental education; and development of community tourism.*

***Low: park interventions are limited to environmental awareness campaigns and mitigation of human-wildlife conflicts. The Mueredzi community has signed a Memorandum of Understanding with GNP for its resettlement to the buffer zone.*

Within each community, the first household to be interviewed was selected randomly, and the remaining households were selected systematically by interviewing every fourth household, i.e. skipping three. An effort was made to approximate a balance of gender and age classes in the total sample (Table 3). The ratio of interviewed men to women in the evaluation of the LNR was 0.88:1, compared with the 1:1.06 ratio in the Lago district as a whole (MAE 2005d). For the GRP, the ratio was 1:1.04, which approximates the ratio of 1:1.06 in the districts covered by the sample (Gorongosa, Nhamatanda and Muanza) (MAE 2005a, MAE 2005b and MAE 2005c). Illiteracy is very high in both study areas: only 23% and 8% of the 256 LNR and 285 GNP individuals interviewed, respectively, had completed primary education (grade 7). Household interviews were administered by trained enumerators hired by Freshly Ground Insights (FGI), a company sub-contracted by Khulisa. The interviews were conducted using local languages (Yao and Nyanja at LNR, and Sena and Ndau at the GRP), employing the interview schedule presented in Annex III.

Budgetary and time constraints, distances and poor roads made it impossible to survey larger samples in both areas, and thereby reduce the margin of error (improve precision).

Key Informant Interviews

Key informants included:

Government officials: Government Officials of the tourism and biodiversity conservation, environment and fisheries sectors at the national, provincial and district levels were interviewed by the consultants, using the interview schedule presented in Annex III. In addition to interviews, relevant reports were collected to obtain data for comparison with other data gathered during this evaluation.

ATB Project Implementing Partners: current and former managers and staff of the three projects under evaluation were interviewed by the consultants, using the interview guide presented in Annex III. In addition to interviews, relevant baseline data and reports were collected for comparisons of equivalent data before and after the implementation of the projects.

Owners and Managers of Hotels, Lodges and Travel Agencies: provincial directorates of tourism of Cabo Delgado and Niassa, district services of economic services, ATB implementing partners and provincial hotel and tourism associations were consulted on the number and location of hotels, lodges and travel agencies in the Northern Arc. From the list, a sample of lodge and hotel owners and managers in Pemba, Ibo Island, Lichinga and Lake Niassa, as well as GNP, was interviewed by the consultants, using the interview schedule presented in Annex III. The list of key informants interviewed with regard to each project is presented in Annex IV.

Table 4: Summary of Respondents

Category of Respondents	Project		
	Arco Norte	LNR	GRP
Community Based Organizations	---	7	---
Government Institutions	10	12	4
Implementing partners/staff	3	5	10
Hotels, Lodges and Travel Agencies	10	2	4
Households	---	256	285

Data Analysis

Most data collected from household interviews was categorical. Proportions of respondents within each category of response were calculated and compared. For some questions, the sample size for the calculation of percentages is lower than the total number of households interviewed because questions were skipped whenever not applicable to a respondent. Data obtained from key informants were analyzed using informal content analysis and pattern matching.

Note that the LNR and GRP household data are not compared, as this was not envisioned in the evaluation design, nor are the two projects comparable.

Risks and Limitations

The tense political-military situation prevented the evaluation team from interviewing households at Mount Gorongosa or visiting the Mount Gorongosa reforestation project.

Poor quality roads, limited time, difficult terrain and long distances between communities affected access for household interviews and limited the total number of households interviewed. At LNR the lack of a boat impeded the inclusion of certain communities in the sample.

The construction of retrospective baselines based on interviews was complicated to a certain degree by changes in the leadership of Government institutions and ATB project managers, which, to some extent, had led to a loss of institutional memory.

ANNEX 4: COMMENTS RECEIVED FROM USAID

Draft Evaluation Report for Gorongosa, Lake Niassa and Arco Norte

1. General Comments that affect the whole report (typos, format, organization, clarity...)

# order	Topic	Comments	Addressed? (Yes/No)
1	Overall Report	Overall, the report makes good reading, providing a good flow of information and analysis. It is balanced and the report structure is also well appreciated. The methodology is also very clearly explained, which is important to understand the findings of the evaluation Team.	Yes
2	Executive summary	Please state evaluation objective/s, mention evaluation design and main methods before the summary result per question.	Yes
3	Missing bullets in the titles	For better tracking of the titles it would be better to have numbers (for ex 1.2.2)	Yes
4	Recommendations	Should be in the main body of the report after every question and not lumped at the end. Suggested recommendation after each and every evaluation question, then a block of general recommendations at the end'.	Yes
5	Missing data in annexes	Summary of notes from focus groups and HH survey should be in the annexes so that anyone that wants to see the evidence can reach the same conclusion that you did. Right now there is no data whatsoever.	Yes
6	Negatives changes	The sections on negative changes s do not differentiate between issues that are within the control of the projects versus outside. It might be valuable to add a section on enabling environment or challenges for each of the programs to explain more about relevant constraints.	Yes
7	Data & Surveys	<p>We very much appreciate the efforts put forth by the evaluators to do household or individual interviews. This level of survey coverage is not always within the scope and capacity of our normal program – and the insight we can gather from this type of effort is great.</p> <p>Given this, it would be very helpful to have more details about the results of those surveys. To begin with, basic demographics of the people/households surveyed would support results (Number men/women, age of respondents, education levels, etc.). In particular to Lake Niassa, more details on the results of the surveys in relation to fish populations and fishing practices would help support some of the results claimed (such as lowering CPUE). It would also give more information to improve management – for example, it would be helpful to know which fish species were noted to be declining or improving, and which communities of Lake Niassa reported which species.</p> <p>There were some very good questions in the surveys done, and it would be great to see more of the results of these surveys. We have even noted that surveys were done with villages where WWF was more active versus less, and it would be valuable to know of any differences noted that might inform and improve our management.</p>	Yes, except comparison of communities because it was not part of project design and was not considered in sampling design

2. Specific Comments that relate to facts, evidence and the logic to the conclusion

# order	Page	Paragraph	Comments	Addressed? (Yes/No)
8	3	8	The evaluation question is about financial sustainability, but the results talk about ecological and scientific returns. Furthermore, it does not give any figures on how far GRP or LNR are from financial sustainability.	Yes
9	3	10	Require should spell require.	Yes
10	8	2	The equation makes absolutely no sense. Are the x's subscripts or do they mean multiplication? Why not use superscripts for ExE as E ² ? Was the proportion of households to be interviewed really 50%?	Yes
11	8	5	<p>Please check figures for the actual populations in the buffer zones and inside the LNR and Gorongosa National Park. See information bellow, provided by Corina Clemente [corina@gorongosa.net]</p> <p><i>The figures that the community planning department uses for people living in the park are between 5000-6000. The source of that info is their own compilation of data done in 2009 (asking Nfumos for lists of families that are then submitted to the local administration units). They are in the process of updating this now.</i></p> <p><i>The figures that we use for buffer zone is between 150,000-200,000 which I am not sure of the source, but it is likely the last census which occurred in 2007. Interestingly, over the last few months there has been a new census here in Gorongosa district for a universal mosquito net distribution process, and they found the actual population was 25% higher than their estimates (which were 10% annual growth from 2007 census), which is probably related to a great deal of in-migration. The new population figures now in 2013 for Gorongosa are 186,227.</i></p> <p><i>Emily is doing a lot work with population figures right now and is interested in the topic.</i></p>	Yes
12	8	5	<p>If the numbers are much larger than reported, and used for sample calculation, the statistical power of the evaluations will be highly unreliable. I am also concerned with the lack of geographical coverage on the surveys (see below). There is still no clarification on the difference between community and village, essential to understand the situation on the ground.</p> <p>Although a performance evaluation does not always/necessarily require statistical representative sample, at least the sample provided is not accurate and Kulissa should provide an acceptable justification for the size since it can't be claimed to be representative.</p>	Yes
13	9	1	There is still no clear distinction between community and village. I want to know where the number of 20,000 people living inside and around the park comes from, why those villages were chosen over others, and the assumed household size. The locations of the communities do not seem representative of the whole area as they are only concentrated in 3 areas, none on the north or east of the park. This makes the whole evaluation weak and unreliable.	Yes

# order	Page	Paragraph	Comments	Addressed? (Yes/No)
14	10	1	Same issues as above. Why one village in the center and three in the North?	Yes
15	10	1st	"Within each community, the first household to be interviewed was selected randomly, and the remaining households were selected systematically by interviewing every fourth household, i.e. skipping three. An effort was made to approximate a balance of gender and age classes in the total sample." - This seems to be a very sound method – it would be good to see the gender balance and other basic demographics of the population surveyed to confirm that a representative population was sampled.	Yes
16	19	1st	"Low levels of tourism have limited the contribution of tourism to job creation and improvement of livelihoods for local communities." - It is indeed the case through the duration of the project. This is an endemic problem in the Northern part of Mozambique and national strategies need to be in place for this to happen. In fact, there is the impression that tourism is decreasing, not growing. The reasons are mostly access: air transport costs from <i>Maputo to Lichinga</i> are extremely high, roads to the Lake are in bad shape and when Hotels manage to get tourist directly from Malawi there is a lot of red tape. This needs to be solved if the country wants to promote tourism as a sustainable use of the environment and benefit communities. Otherwise, there is a need to think of alternatives to this industry.	Yes
17	19	6th	On " <i>The current discussion concerns which institution is to manage the LNR (MITUR or the Ministry of Fisheries)</i> ": We think it is important to mention the recent development of ANAC, and the role they will likely play in Lake Niassa in the future. The shifting of management of the Reserve between ministries means that further delays in the management plan approval are possible. This is an ongoing challenge.	Yes
18	19	7th	"Forty six per cent of 115 respondents had changed the way they fish due to the project,..." - Which respondents are these? In annex tables we can see this is from household surveys, but we suggest this should be clear in the text. Also, 115 respondents is lower than the total number of household surveys, is there a reason for this difference?	Yes
19	21	1st	As described in the report, as negative aspects of the management of natural resources: " <i>Somewhat declining motivation on the part of the rangers, due in part to the lack of authority to fine for illegal practices, transportation, radios or mobile phones for timely reporting, and rations during patrolling activities.</i> " - This is also a legislation problem of the co-management approach in Mozambique. "Community Rangers" or members of CCP are not fully empowered; they can only do so much. On the other side, what also should have contributed to the low motivation is the delays in payments due to all the transfers needed before each ranger gets his subsidy.	Yes
20	21	4th	Under " <i>Is the growing catch at LNR Sustainable?</i> " – This is helpful information to know and to monitor, and supports our understanding that much more in the Lake needs to be done to improve the sustainability of the artisanal fishing. However, it would be good to have a better idea how these figures were calculated. Also, more information about which fish species may be doing better than others would add depth to this story and could improve management.	Yes
21	28	2	How does tourism generate sustainable revenue for the Park? How much? This sentence makes little sense and needs numbers that show how GNP is on the path of self-sustainability without donor funds from USAID or GRP.	Yes

# order	Page	Paragraph	Comments	Addressed? (Yes/No)
22	28	4	The E.O. Wilson center does not exist yet, so it cannot have made positive contributions to the Park. There is ongoing research, but not dependent on the center which has yet to be inaugurated. This paragraph needs to be rephrased.	Yes
23	29	2	Why is there no mention of the GNP operators that are leaving the Park and their reasons for leaving? This is important to mention because it puts into question the ability of GRP to attract and keep tour operators, hotels, and partners.	Yes
24	30	overall	Most of these recommendations are not for USAID to implement. There could be some generalist recommendations but we also wanted recommendations by question.	Yes
25	30	12 th	In terms of the recommendation " <i>WWF should continue working with Community Fishing Councils and community rangers, increasing their motivation by providing basic conditions for effective work and, if possible, paying better wages</i> ": This recommendation is indeed much appreciated. However, WWF needs to thread this issue very carefully because of sustainability and the fact that rangers should later be absorbed by the District or the Reserve Administration. For us, one of the biggest problems concerning the salary is the delays in payments. Rangers do not work full time.	Yes
26	30	13 th	As for recommendation " <i>WWF should strengthen patrolling in the lake, to eliminate the remaining pockets of illegal fishing or fishing using destructive methods</i> ." It is also very welcome, an important aspect. However, it should be noted that this is one of the most expensive activities in the future Reserve, as it requires good communication, human capacity and patrolling equipment. It is one that we always struggle.	Yes
27	30	14 th	Recommendation: " <i>Aquatic biodiversity studies need to be conducted to create a baseline for monitoring progress in conservation, including trends in fish diversity</i> ." This is definitely very welcome, and something we would like to address in the near future, as it is fundamental to making sure we are improving conditions in the Lake.	Yes

# order	Page	Paragraph	Comments	Addressed? (Yes/No)
28	1	1 st – bullet point 3	The GRP is not a public-private partnership with the Carr Foundation. The GRP has a Long Term Agreement with the Government of Mozambique to manage Gorongosa National Park. The Carr Foundation is the main donor of the GRP.	Yes
29	1	Final	The last two lines of this paragraph are highly subjective and not relevant to the Evaluation Questions as internal communication and management within the GRP are not included in any of the 23 expected results.	Yes
30	2	GRP positive factors	“Gradual” as in “gradual appointment” is not required as Mozambicans have occupied senior managerial positions since the start of the restoration project. Rather than “publicity”, use “media exposure” especially in films and social media.	Yes
31	2	GRP negative factors	“High turnover rate of qualified staff” – this is not the case and this claim needs to be supported by actual cases. As regards expatriate staff, it is normal that these leave after two to three years. There is a Park Management Plan. The problems are the lack of roads outside the main public drive network rather than the “poor quality of existing roads”, the inaccessibility of some parts of the Park due to the lack of a bridge over the River Urema and seasonal flooding. How is the “poverty of people living and around the Park” directly linked to the specific evaluation question?	Yes
32	3	GRP negative changes Evaluation Question 5	‘prohibition of slash and burn agriculture without providing alternative sources of livelihood and income’ - this statement is not true as there are no restrictions placed on the farmers, even those living in the Park. The Park seeks to encourage communities to stop this type of agricultural practice but is not in a position to prohibit it. The main cause of increased crop damage by elephants is due to farmers growing their crops closer to the boundaries of the Park – and sometimes even within the boundaries. “not yet <i>approaching</i> financial sustainability”. This is not due to the current political situation in the area but solely because the restoration project is still in its initial stages and financial sustainability is a long term objective. The political situation is having, one hopes, only a short term impact on tourism numbers and therefore revenue, but the Park is a long way from financial sustainability, so “approaching” is not the correct term.	Yes

# order	Page	Paragraph	Comments	Addressed? (Yes/No)
33	4	Last paragraph	"improve the coverage of the road network". The extension of the current road network will indeed be beneficial for law enforcement, but will not necessarily increase ecotourism. A number of other factors are of more importance.	Yes
34	6	Evaluation Time Frame	The amount should be \$ 4.5 million rather than \$5,5 million to March 2013. An additional \$ 1 million for the period 1 April 2013 to 31 March 2014 was awarded as a "cost extension" in March 2013.	Yes
35	7	GRP	The reference to "Amendment #2 " is incorrect, as are the dates of the programme and the amounts of the award. Under "Modification n° 7" the period of the agreement was extended from 10 December 2012 to 31 March 2013, through a "no cost extension". Under "Modification n° 8" the period was extended from 1 April 2013 to 31 March 2014, as a "cost extension". Under the latter modification, the amount of the award was increased from \$ 4.5 million to \$ 5.5 million	Yes
36	8	Final paragraph	The human population in and around the GNP is more than 20 000 – the GRP estimates the population of the buffer zone as between 150 000 to 200 000. If the figure in the report is not just a typing error surely this error will have an impact on the sample size and results?	Yes
37	22	2 nd paragraph	"publicity" – awareness or educational media would be more appropriate. The name of the tourism establishment is " Girassol Gorongosa Lodge and Safari"	Yes
38	23	First paragraph	Factually incorrect. The Vinho school and clinic were built by the GRP using its own funds. The buffer zone communities are entitled to receive 20% of Park entrance fees NOT 20% of Park tourism revenue.	Yes
39	23	Second paragraph	The "reopening" of the GNP was some years before the involvement of the GRP and funding by USAID. Which event are the respondents referring to?	Yes
40	23	Final paragraph	"re-start" of the GNP. See comment above regarding "reopening".	Yes
41	24	Under Table 10 3 rd paragraph	Add – " The count in 2012 was undertaken early in the year when the grass was still long and leaf fall not yet complete. This resulted in diminished visibility hence the reduction in numbers observed of particularly Common redbuck." Not "rifles" but home-made shotguns.	Yes
42	25	Second bullet.	Last sentence: 'managers believe it is still a serious threat to ecosystem integrity'.	Yes

# order	Page	Paragraph	Comments	Addressed? (Yes/No)
			<p>The role and impact of fires is currently being re-assessed. A more contemporary view is emerging that sees fires as being essential to the maintenance of diversity and vigor of these grassland and savanna ecosystems that have evolved and adapted in the presence of millennia of regular fires. Therefore, fire should not <i>per se</i> be considered as 'bad'. Even late season fires with high intensity are necessary to control woody encroachment. The perceived 'damage' may thus represent the intended outcome.</p> <p>The desired balance between early and late fires, their spatial extent and distribution, and their return period will be fine-tuned as the system becomes better understood through the ongoing research programmes.</p>	
43	25	Third bullet	The lion research project started in 2012, not 2010.	Yes
44	25	Fourth bullet	Figures used are for 2011 but figures for 2012 are included in the reports to USAID.	Yes
45	25	Last paragraph	Again the incorrect statement about 'prohibition of slash and burn agriculture'	Yes
46	26	First bullet	Tonga Torcida is not a boy but a young man in his early twenties.	Yes
47	26	3 rd paragraph	" GNP has started up again..." see previous comments above.	Yes
48	26	Last paragraph	<p>" .. there is a new organisational (sic) chart". There has always been an organisation chart for the GNP / GRP and this is revised as necessary. From the report it would appear that this is something recent and quite different from previous organisation charts but this is not the case.</p> <p>Greg Carr is a member of the Oversight Committee along with the representative of the Ministry of Tourism "seems to be improving and any initial autocratic tendencies" ...what is the basis of these subjective statements? This question is about capacity building for Mozambican staff – were these comments received from the lower and middle management Mozambican staff?</p> <p>"fancy" – probably not the best adjective to use</p>	Yes
49	26	Last paragraph	<p>Separate 'community affairs coordinator' should be 'Director of Community Relations'.</p> <p>Most of this paragraph is not relevant to the question in bold in the centre of the page.</p>	Yes
50	27	First two lines	<p>The contractual relationship is between the guide subcontractor and Girassol, not the Park. Note that Girassol has recently terminated the services of the guide subcontractor.</p> <p>This comment is not relevant to the question in bold in the centre of the previous page.</p>	Yes

# order	Page	Paragraph	Comments	Addressed? (Yes/No)
51	27	Positive factors	<p>There is a heavy emphasis on the 'experienced ecologists' and the external research. However, it is the presence of an experienced and capable management team that is most important for effectiveness.</p> <p>"Gradual appointment" – not accurate, see similar comment above.</p> <p>"Publicity" should be media exposure. The term should not be "advertised" but "raised awareness".</p>	Yes
52	27	Negative factors	<p>High turnover of qualified staff. For 'undisclosed' reasons. These could be qualified as e.g. end of contract terms. See earlier comment about staff turnover – which mainly applies to fixed term expatriate staff.</p> <p>In fact, a number of senior staff and most middle and lower management staff have been with the project for a long time (relative to the length of time the project has been in operation).</p>	Yes
53	27	Negative factors	<p>Lack of a management plan. There is a management plan in place.</p> <p>Many National Parks have management plans. Some of these have been redone several times, often at a great cost. However, this often means very little because implementation is not there. The reality is that the existence of a management plan is a poor predictor of the effectiveness of Protected Area protection and development.</p> <p>A modern view on management plans is that these should be documents that are more strategic in nature and that provide the major directions in which Park management should go. The way in which this is implemented will be more tactical in nature. Actions are adapted from year-to-year based on a number of factors including feedback on the state of the protected area and the results obtained by previous management actions.</p>	Yes
54	27	Negative factors	<p>Limited road coverage is indeed a negative factor and it does impact effective law enforcement. However, it is not right to link the lack of roads to law enforcement effectiveness. There are other ways of ensuring good patrolling. The GNP will always have a relatively low road density because of the terrain and seasonal flooded conditions. A relatively significant part of the Park will probably never be used for game-based tourism (e.g. the lower carrying-capacity environments of the eastern and western edges). This cannot be held against the Park as it is an intrinsic characteristic of the particular environment.</p>	Yes
55	28	Positive changes	<p>That the animals introduced (mainly elephants) ... This need to be factually corrected. Only 4 elephants were introduced (as against the total population of 300+ elephants).</p> <p>Prohibition of slash and burn agriculture – see previous comments.</p>	Yes
56	28	Negative changes	<p>Prohibition of slash and burn agriculture – see previous comments</p>	Yes

# order	Page	Paragraph	Comments	Addressed? (Yes/No)
57	28	Last paragraph	'due to its easy accessibility to people in need of natural resources inside' This sounds very innocuous. Reality is that many people are poaching wildlife on a commercial basis, not for subsistence. The same applies to some illegal loggers. What National park in Africa does not need to invest in patrolling and law enforcement?	Yes
58	29	2 nd paragraph	<p>The authors are quoting from a draft plan that has not yet been approved by the management team and is under revision. The authors were advised not to use this plan in their evaluation – it was merely to be used for background information, with the proviso that it was not in final form. It is disappointing that the authors chose to ignore these instructions.</p> <p>The author's were specifically advised that the assumptions used in the financial sustainability model needed to be revised and the resulting figures should not be used. The quote of being "unrealistic" is incorrect.</p> <p>Individual names, with the exception of Mr Carr, have, quite rightly, not been used throughout the report except in this section. The reference to the individual, rather than the title, should be removed.</p> <p>The commitment under the Long Term Agreement is \$ 24 million. Any references to other amounts "reportedly mentioned" should not be included in a formal report.</p> <p>"..absence of unified accounting for the Park as a whole". This is factually incorrect, as is the conclusion drawn by the authors.</p>	Yes
59	29	Penultimate bullet point	The activities of the CEC are concentrated on providing conservation education to children. It is unrealistic to expect changes in behaviour, as regards agricultural methods, within three years of the opening of the CEC.	Yes
60	29	Final bullet point	Limited road network rather than "poor road network".	Yes
61	30	4 th bullet point	This should be the GNP not the GRP. Also it was never expected that the GNP would be financially sustainable within five years. This is the long term (20 years) objective.	Yes
62	31	Penultimate bullet point	See earlier comment regarding road network and ecotourism.	Yes
63	31	Final bullet point	"Spreading awareness" rather than "advertising"	Yes
64	Annex	Expected results – Reduction in uncontrolled fires	'Uncontrolled fire is one of the most persistent threats to the Gorongosa ecosystem.' See earlier comments on this topic. This is actually one of the lesser threats compared to illegal hunting, invasive alien plant species, and the consequences on water resources from land use practices and changes therein outside of the Park borders.	Yes

# order	Page	Paragraph	Comments	Addressed? (Yes/No)
65	Annex	Lions surveyed	The study started in 2012 – not 2009	Yes
66	Annex	Reduced water pollution	'Legal mining is a major threat'. This is not a given. A well-managed formal, legal, mining operation could lead to much less impact if it replaces the illegal mining operations.	Yes
67	Annex - Recommendations	Capacity building	'It should be an obligation for the Carr Foundation to make sure that research or consultancies carried out by overseas experts involve Mozambicans as assistants to build their capacity'. Management do not believe in these mechanical solutions. Often they lead to window dressing. The current research partners seem to be genuinely interested in capacity building. Each comes with their own unique approach. This will lead to a more genuine and lasting capacity building.	Yes
68		Wildlife Sanctuary	"The Park should consider.....". The authors were advised by management that the decision was taken in December 2012 to reduce the size of the sanctuary to about 2 000 hectares but this was not carried out in 2013 because of other priorities.	Yes

ANNEX 5: SOURCES OF INFORMATION

- **LIST OF KEY INFORMANTS**
- **LIST OF TRAINED ENUMERATORS**

1. LIST OF KEY INFORMANTS

GORONGOSA RESTORATION PROJECT	Category
Domingos Robinson, Operational Director, Girassol Indy Congress Hotel & Spa, Lichinga, Niassa	Hotels
Luís Palmeirim, Bushfind Moçambicana, Marriquem	Hotels
Pedro André, Administrator, Grupo Visabeira, Maputo	Hotels
Tish Grant, tour guide at GNP, Bushfind	Hotels
Bernardo Macare, Chief of Law Enforcement, Gorongosa National Park	Implementer
Carlos Lopes Pereira, former director of conservation, Gorongosa Restoration Program	Implementer
Corina, Global Health Fellow, Gorongosa National Park	Implementer
Herculano Ernesto, Coordinator of Environmental Education, Gorongosa Restoration Project	Implementer
James Glasgow, Operations and Infrastructure Manager, GRP	Implementer
Mário Barca, Chef, Community Education Center, Gorongosa	Implementer
Mateus Jose Mutemba, Administrator of Gorongosa NP	Implementer
Pedro Muagura, Director of Conservation, GRP	Implementer
Regina Cruz, former manager, forestry component, Gorongosa Restoration Project	Implementer
Alan Short, Manager Biological Monitoring GRP	
Abdula Mussa, Director, ANAC/MITUR	Institution
Arlindo Langa, National Director, Directorate of Planning and Cooperation, Ministry of Tourism	Institution
Jofrisse Beca, MITUR representative on the board of the GRP	Institution
Julieta Lichuge, National Administration of Conservation Areas, ANAC	Institution
Mohammed Harun, USAID employee assigned to MITUR	Institution
Vasco Galante, Communications and Tourism Director, GNP	Implementer
Sheila Zacarias, USAID	USAID
Sergio Macuacua, USAID	USAID
Tim Born, USAID	USAID
Robert Layng, USAID	USAID
Paulo Matos, Visabeira Turismo	Hotels
Angela Hogg, USAID	USAID
LAKE NIISSA RESERVE	Category
Abdula Mussa, Director, ANAC/MITUR	Institution
António Pegado, IIP - Metangula	Institution
Julieta Lichuge, National Administration of Conservation Areas, ANAC	Institution
Mohammed Harun, USAID employee assigned to MITUR	Institution

LAKE NIASSA RESERVE	Category
Community Fishing Council (CCP), Cobue, Niassa	CBO
Hilário Siteo, WWF, Conservation Director	Implementer
Iaesin Ilabim, Permanent Secretary, Lago District	Institution
IDPPE (Institute for the Development of Small-Scale Fisheries)	Institution
Isabelle Rueeksegger, Manager, Maya e Filhos Ltda., Mbuna Bay Retreat Nkholontue Distrito do Lago, Province Niassa	Hotels
Macabeu Mumade, Post Chief, Meluluca	Institution
Malcolm Neill Turner, general manager, Manda Wilderness Ltd., Community Trust, Lichinga, Niassa	Hotels
Maria Ascensão R. Pinto, Adjunct General Director, National Fishing Administration (ANP)	Institution
Mário Falcão, Consultant LNR Mgt Plan	Institution
Momade Stafe, chief of the Cobue Administrative Post	Institution
Papucides Ntela, former Project Manager, Lake Niassa Project, WWF	Implementer
Peter Betchel, former coordinator for the North, WWF	Implementer
Rosa Kalima, Provincial Directorate of Fisheries Niassa	Institution
Community Fishing Council (CCP), Meluluca, LNR	CBO
Community Fishing Council (CCP), Metangula, LNR	CBO
Community Rangers, Metangula, LNR	CBO
Community Rangers, Meluluca, LNR	CBO
Community Rangers, Cobue, LNR	CBO
Geraldo Chizango, Project Manager LNR WWF	Implementer
Albino Nandja, Field Officer LNR WWF	Implementer
UMOJI Association	CBO
Ernesto Cawele, Fisheries Technical Assistant, IIP, Lake Niassa	Institution
Manuel Simão, Department of Conservation Areas, DPTUR - Niassa	Institution
Ana Paula Francisco, Emilia Pulana, Regina Muianga, technical personnel, MICOA	Institution
Sheila Zacarias, USAID	USAID
Sergio Macuacua, USAID	USAID
Tim Born, USAID	USAID
Robert Layng, USAID	USAID
Paulo Matos, Visabeira Turismo	Hotels
Angela Hogg, USAID	USAID
ARCO NORTE	Category
Arlindo Langa, National Director, Directorate of Planning and Cooperation, Ministry of Tourism	Institution
Bridgit Helms, Chief of Party, Support Program for Enterprise and Economic Development (SPEED)	Institution
Egas Tembe, National Institute of Tourism (INATUR)	Institution
Kwasi Agbley, former Cognizant Project Manager (CPM) and Chief of Party, PTM, Arco Norte	Implementer
Mohammed Harun, USAID employee assigned to MITUR	Institution

ARCO NORTE	Category
Pedro André, Administrator, Grupo Visabeira, Maputo	Hotels
VIATUR, travel Agency in Pemba	Institution
Kaskazini, Travel Agency in Pemba	Hotels
General Manager of Pemba Beach Hotel	Hotels
Micas, Department of Urban Planning, Municipality of Pemba	Institution
Owner of Chiuba Bay Lodge	Hotels
Manager of Ibo Hotel	Hotels
Cesar Pico, Head of Department of Tourism Activities, DPTUR - Cabo Delgado	Institution
Ângelo Maini, Head of Department of Tourism Activities, DPTUR - Niassa	Institution
Ana Maria, Regional Delegate of INATUR, Pemba	Institution
Chabane, former president of CDTUR - Cabo Delgado	Institution
Ambrose Hilário, Director of SDAE - Ibo Island	Implementer
Abdula Saide Junior, SDAE - Ibo Island	Institution
Amilcar Cesar Nemoto, SDEJT - Ibo Island	Institution
José Vilela, Construction Manager, Nathan Associates	Implementer
Sérgio Uate, Architect, Nathan Associates	Implementer
Ibo Island Lodge	Hotels
Miti Miwiri, Ibo Island	Hotels
Cinco Portas Guest House, Ibo Island	Hotels
Sheila Zacarias, USAID	USAID
Sergio Macuacua, USAID	USAID
Tim Born, USAID	USAID
Robert Layng, USAID	USAID
Paulo Matos, Visabeira Turismo	Hotels
Angela Hogg, USAID	USAID

2. LIST OF TRAINED ENUMERATORS

Team Leader - Chisomo Chilemba

Supervisor - Gerson Gussul

LNR Team:

1. Interviewer - Zacarias Adamo
2. Interviewer - Milagre Marcos
3. Interviewer - Onorio Ropsone,
4. Interviewer - Sonia Mateus
5. Interviewer - Adelina Quembo
6. Interviewer - Ofelia Teodoro

GRP Team:

1. Interviewer – Ana Rita
2. Interviewer – Maria R. Zeca
3. Interviewer – Alfredo Chico
4. Interviewer – Jose Macedo
5. Interviewer – Vasco Ernesto
6. Interviewer – Filipe Melo
7. Interviewer – Alberto Guta

ANNEX 6: SUMMARY OF KEY INFORMANT INTERVIEWS

Note that the following provides a very short summary of points made by the key informants. It is not comprehensive, as the average duration of each interview was one hour. Informants are not identified, and any points made regarding which the informant requested confidentiality are not included.

1. ARCO NORTE

1.1. Government institutions

The Strategic Plan for the Development of Tourism has had positive effects in terms of strategic markets: improved policing, traffic and highways; and quality training and establishments.

National level INATUR was directly involved in the implementation, but not provincial delegates of INATUR. Provincial directorates of tourism were involved, but not the staff. District Services of Economic Activities (responsible, among other things, for tourism activities) were not involved in project activities. This resulted in lack of capacity development, which hinders continuity. The involvement of the private sector was also weak.

The project produced master plans for tourism development, including Zones of Tourism Interest (ZTI's). This will potentially contribute to better organized development of tourism. Provincial Directorates of Tourism (DPTUR's) adopted a land use plan that establishes zones of tourism development. When tourism investors submit applications for land, DPTUR uses the master plan. However, this plan is not sufficient; there is a need for an urbanization plan to identify clearly where roads and other infrastructure will be built. The municipalities have also adopted ZTI's and encourage tourism investors to identify space within ZTI areas that do not have other infrastructure.

The achievement of the objectives of Arco Norte was constrained by several factors, including high transport costs to the north of the country, limited capacity of airports, visa problems.

Arco Norte rehabilitated Monuments at Ibo Island.

At the end of the project a public-private company, Mozaico do Indigo, was created to promote marketing of Zones of Tourism Interest and other opportunities for tourism development in the country, in partnership with INATUR.

1.2. Implementers

The project created provincial and regional tourism associations. These associations were effective during the lifetime of the project, but their functionality dropped considerably after the end of the project, with almost no activities between 2010 and 2012.

Achievement of the objectives of Arco Norte was constrained by several factors, including high transport costs to the north of the country, limited capacity of airports, visa problems, limited number of rooms (until September 2012, there were only 1300 beds in the whole of Cabo Delgado province), lack of sewage management infrastructure, lack of open sky policy (monopolization of air transport). The country is too dependent on South Africa for the arrivals of international tourists due to small sizes of airports. These challenges were outside the control of the project.

Government institutions lack capacity to continue with project activities. USAID provided funds to a company called SPEED to address some of the challenges to increase the number of tourist arrivals and investors in northern Mozambique.

1.3. Hotels, lodges and travel agencies

There is water shortage in Pemba (for example, Pemba Beach spends about 30,000 Euros/month to buy water). This does not encourage investors. The cost of air tickets is very high, which is worsened by the fact that tourists coming from Europe must go through Maputo before going to Pemba.

The exchange program with Gorongosa has worked very well. Most of our guests come on business; it is difficult to visit the protected area (Lipilichi Wilderness).

Offers cultural tours (community visits: Macua, Quimuane and Maconde culture), as well as beach activities (scuba diving, kayaking, bird watching, tours to Quirimbas island, Dar Safari and camping on other islands). Before 2008, profits were good. However, the global financial crisis seriously affected the lodges; now they are recovering, i.e., there is again an increase in profits.

Offers boat rides (transfers from continent to island), snorkeling, visits to sand bank (world class beach, a walk at low tide to Quirimbas Island). Cultural tours to communities and monuments (Fortaleza and fortin). In general, there is limited space (availability of rooms) during peak season. The local government does not care about waste management.

Arco Norte did not work; an unrealistic plan was produced which is not being implemented. No increase of tourist arrivals was noted after the implementation of Arco Norte. The best year was 2005. The current increase in numbers of tourists is mainly due to the gas boom. A hotel in Pemba is under construction, also mainly in response to demand associated with gas industry. It is a business hotel; today there is little leisure tourism in Pemba.

There is a need for INATUR at the central level to work with the Ministry of Mineral Resources, because the province is being advertised as rich in minerals and gas, which overshadows the tourism industry. The preparation of Master Plans did not include discussions of priorities with private sector (tourism operators) and local government institutions.

Arco Norte determined that hotels and lodges should be 3-5 star; this has discouraged small and medium investors with limited financial capacity. Occupancy levels are low, which keeps investors from investing without assurance of occupancy. Security is also low. There is very little repeat tourism.

1.4. Other sources of information

Despite certain discrepancies, errors regarding numbers of tourists are generally minimal. The Mozambican middle class travels short distances and tends to stay at vacation homes or friends' houses.

Offers Environment & Wildlife excursions, e.g. to Quirimbas National Park; culture and history, mainly history of Ibo Island, beaches along the coast and islands, scuba diving, sport fishing.

Offers Environment & Wildlife: the province with one of the three largest wildlife reserves on the continent (Niassa NR), biodiversity and scenic beauty of Lake Niassa, hunting concessions and community wildlife management areas. Culture and history: e.g. paintings on rocks in Ngauma and Nipepe districts. Beach and scuba diving at Lake Niassa. The tourism development plan for Niassa includes annual star festivals at Lake Niassa. This plan also encourages investors to come to Lake Niassa; despite the high potential for tourism, investment is very limited.

INATUR provides up to 1,000,000 MT to support tourism operators. Offers Environment & Wildlife: Niassa province; culture and history: e.g. Ibo Island monuments are a national heritage due to their old architecture; beach and scuba diving along the coast, islands and Lake Niassa. The potential is very high but promotion/advertisement is very limited. In the past, tourism scholarships were used.

2. LAKE NIASSA RESERVE

2.

2.1. Government institutions

The pending transfer of responsibility from the Fishing Ministry to the Tourism Ministry has delayed the approval of the management plan. The Ministry of Fishing has tried to create harmony with MICOA, MITUR and WWF in implementing the Lake Niassa Reserve. It has never had a relationship with USAID. Total fish catches increased in the lake for the following reasons: (a) increased monitoring capacity of IIP, (b) increase in the number of fishermen, (c) increase in the number of fishing methods, (d) increased availability of credit schemes facilitating the acquisition of boats and nets by fishermen.

IDPPE (the National Institute for the Development of Small Scale Fishing) suffers from a lack of human capital. Now it is complemented by INAQUA (National Institute for the Development of Aquaculture). A lot of fuss was made over USAID's Arco Norte project, but there were no practical results.

WWF helped with inspection (they used to pay for it), but this year they haven't helped at all; inspection is expensive. What helps most is refrigeration, transportation, vessels, fishing materials. One problem is a vessel for the mid-lake; there is not so much fishing near shore. The Ministry of Fishing must administer in accordance with the respective decrees.

The CCP's help control and avoid violations by foreigners. The Navy is responsible for maritime security, mostly military. There are mixed commissions with lacustrine, maritime and naval forces. The maritime and lacustrine administrations issue licenses and seals. The maritime administration has only one vehicle and 3 or 4 big boats. The WWF one is ours, and is used for inspection. We only fine foreigners.

2.2. Implementers

The buffer zone extends from Meluluca (Lucefa River) in the south to the Utsessi River (Cobue) in the north (150 km), and along the road from Meluluca to Cobue. The core area covers 2 miles (4 km) from the shoreline to the interior of the Lake. There was widespread community consultation in 2007 and a socioeconomic survey was conducted. Some communities that were initially outside the project area requested the extension of project boundaries to include them; this is the case of Meluluca in the south and Chigoma in the north. Meluluca, up to the Lucefa River, was only included in 2008.

WWF promoted the participation of local communities in conservation through the creation or training of community based organizations, such as Community Fisheries Councils (CCP), community rangers, fisheries associations and credit groups. WWF also supports UMOJI association, mainly through training

in conservation, agriculture, sustainable fishing and prevention of uncontrolled fires. MITUR, TFCA (Trans-Frontier Conservation Areas), and ANAC comprised an annual coordinating council to set up Lake Niassa. In the inception phase, Nathan Associates won the bid, and hired many people. They proposed a reserve. Lake Niassa was said to be the jewel of freshwater biodiversity in Africa. Malawi damaged the deniphic algae – muddy messes the water up and provokes turbidity. Bright colored species adapt, mating indistinctly; this leads to reduced diversity. 1/3 of the species were extinct. In Tanzania there was fighting. 1 year, 2 years later, a huge buffer zone was declared. Forestry, agriculture, and fisheries management regulations were in place.

The following are the main threats and pressures that threaten the achievement of project objectives:

- a. Different approaches to conservation among stakeholders. For example, when WWF builds awareness to prevent agriculture on the banks of the rivers due to impacts on the lake, the Government encourages local communities to practice agriculture in these areas to adapt to drought.
- b. Pressures include the rapid growth of human population, and
- c. climate change (long dry season and heavy rains in a short period of time), which might have a negative impact on species that depend on the river for reproduction. Malawians used to fish in Mozambican waters during their no-fishing season (November-March).
- d. Other threats include the use of mosquito nets and poison for fishing.

USAID funds contribute to the purchase of a vehicle, boat, tents, and uniforms for rangers and to pay the costs of training for community organizations and other partners.

2.3. Hotels and Lodges

Mbuna Bay Lodge opened in 2008. Situated 125 km from the nearest airport, in Lichinga. To date in 2013, 220 guests have stayed 347 nights. They are mostly from Portugal, Spain and the UK, in that order.

Nkwichi Lodge opened January, 2002. The nearest airport is Lukuma, Malawi - 15 km. Guests at the lodge come mainly from the UK, South Africa, and Germany/France, in that order. Average monthly labor expenses are \$10,000. The Trust receives \$5 per person-night. There was a profit until 2008. With the financial crisis, profits were halved in 2009; for the past three years, there has been no profit.

2.4. Other sources of information

WWF did a lot with limited resources. They sought complementary support from the U.S. Dept. of Defense. The first grant was a boat. Establishment of the draft management plan, regulatory & operational procedures. The focus was on medium-high level objectives. Co-funded with WWF core funds, Coca Cola Foundation. USAID advocated for the Ministry of Fisheries, because fishery engagement was needed. The Mozambican Navy was a difficult partner for the United States government.

We need more fishing companies, to equip the fisheries, as well as tourism companies in the buffer zone.

Positive effects: we invited the Malawians to discuss the reserve with CCP's, community leaders, and inspectors. Now all types of nets are available; before, fishermen only bought fine mesh nets.

3. GORONGOSA RESTORATION PROJECT (GRP)

3.

3.1. Government institutions

USAID has been the number one leader in support of Gorongosa NP. The LTA provides that the Carr Foundation is responsible for infrastructure and finance, including tourism. The Department of Infrastructure and Finance is partly under the Ministry of Tourism and partly under the Carr Foundation. The strategic internal part is the responsibility of that department, while Conservation is under the Ministry of Tourism. By December, the management plan should be finalized; it should be put into action by the end of the year.

3.2. Implementers

Overall, the GNP budget per year is about US \$ 2 million, but with no division by department. Among the main threats and pressures that threaten the achievement of project objectives is legal mining near Muanza (limestone mining – a 3000 ha. concession approved by the Ministry of Mineral Resources), poaching, invasive alien plants and slash and burn agriculture.

The goal of the GRP is to conserve the biodiversity of the greater Gorongosa ecosystem and contribute to the improvement of livelihoods of communities in the buffer zone. It is difficult or impossible to make GNP financially sustainable. GNP is 100% Carr Foundation. Brand building and education drive tourism. The Park was losing lots of money before Girassol. USAID has targeted conservation and science.

Two years ago a proposal was sent to management to train youth; no reply has yet been received.

The annual budget for biodiversity conservation and tourism activities during the period of project implementation is about USD 1,000,000 each for the departments of conservation, scientific services and environmental awareness, totalling US\$ 3.2 million/year. The turnover in the past was due to personal reasons, periods of time, different philosophies and expectations.

The three pillars of the project:

- Environmental: restore the Gorongosa ecosystem through increasing animal numbers (re-introductions and protection), restore forest of the Gorongosa Mountain (fully funded by USAID), control invasive species, and maintain hydrological processes;
- Social: support local communities (environmental education, water and health);
- Economic: create financial sustainability of the park through tourism. The annual budget for biodiversity conservation and tourism activities during the period of project implementation has been about USD 370,000/year; he couldn't say how much was from USAID.

The target population for environmental education consists of school pupils, groups in the communities: associations, management associations (for natural resources and income), beekeepers, peasants' associations, community leaders and other members: mass campaigns are conducted in the communities.

Hits are up 30% from last year. There are 24,000 Facebook followers for Gorongosa, vs. 21,000 followers for Kruger. In 2005, at world travel fairs, only the Portuguese were aware that Mozambique had anything to offer besides a couple of nice beaches.

3.3. Hotels, lodges and travel agencies

The hotel opened Nov 2011, with a 12 year contract. Guests come mostly from Italy, Portugal, Spain, Holland and the U.S. Mozambicans come for the weekend, without a reservation; they receive a 20% discount and pay no park entrance fee. Labor expenses average \$11,000 per month.

Gorongosa lacks security measures, proper insurance, indemnity forms – tourists sign nothing before tourism activities. Elephants attacked a park car 3-4 weeks ago. In the future, accidents can have major effects. In general, tourism will grow 10 or 30-40%. Awareness of Mozambique is growing (if no Renamo-Frelimo conflict).

Bushfind's main objective is to take people away from the beaches. The capacity of the Gorongosa camp is 150 clients. T4M has the capacity to take all the guests to game view, mountain, community visits. However, because the camp is not busy, they have only 2 vehicles, each for 10 passengers, and 1 driver. Based on the bookings from the hotel, they request additional vehicles as needed.

ANNEX 7: GROUP INTERVIEWS IN THE LAKE NIASSA RESERVE

1. COMMUNITY FISHING COUNCIL (CCP) - MELULUCA

When was CCP created?

2009

Who promoted the creation of CCP?

WWF

How many members?

Each CCP has 12 members, there are 6 CCP in the PA of Meluluca

What was the motivation/reason to create CCP?

Before CCP mosquito nets were used for fishing, traps were laid at the entrance of rivers to catch fish species that migrate to reproduce in the river during the rainy season, uncontrolled fires were also frequent. With CCP mosquito nets and fishing in river entrances have been banned and uncontrolled fires reduced considerably.

Who can be member of CCP? Any specific requirement?

What is the job of CCP members?

Build awareness among community members regarding the need of sustainable natural resource management, patrolling along the lake shore to detect and discourage people using mosquito nets and other destructive fishing practices. If fisherman do not do follow the message from CCP, this information is reported to other authorities including community leader and local government (chefe do posto)

What is the attitude of ordinary community members in relation to CCP members?

People did not react negatively because they agreed with the message from CCP to ensure the availability of resources for future generations. We are now using resources that previous generations used sustainably

What are the benefits to CCP members?

This job does not have benefits, it is voluntary. CCP should at least have uniforms and ID cards so that they are properly identifiable when patrolling or building awareness for sustainable resource use. They only have t-shirts received on world fisheries day.

Did the start of the WWF project change the way fishermen fish? If yes, what changed?

Yes, mosquito nets are no longer in use

The start of WWF project changed the place where fisherman fish? If yes, what changed?

The start of WWF project changed the time of the year for fishing? If yes, what changed?

No

How do you compare the number of fishermen before and after the start of WWF project and creation of CCP?

There is an increase of fishermen with licenses.

How do you compare the number of illegal fishermen before and after the start of WWF project and creation of CCP?

Illegal fishing dropped considerably.

How do you compare the time necessary to catch the same amount of fish before and after the start of WWF project?

Fish are increasing. Hence the time needed is being reduced. There is an increase in capture per unit effort (CPUE), i.e. keeping the effort constant (fishing method)

How do you compare fish diversity before and after the start of WWF project?

Fish diversity is increasing, there are fish species that had disappeared and now they are coming back

What are the five most important fish species?

Ussipa, uthaca, tchambo, sandjica, vibanje

Is there any fish variety that you see in the last 5 years, which had disappeared?

Tchila, ningue

Is there any fish variety that disappeared and you don't see anymore?

Vingua, mbalule, kajakolo, mphassa

Is there any fish variety that was rare but is increasing in abundance in the last 5 years?

Tchambo, peixe gato, uthaca. Ussipa increased sharply after the abandonment of mosquito nets that were capturing juveniles

Is there any fish variety that has always been rare and remains rare?

No.

To improve the conservation of the lake:

WWF through CCP should continue building environmental awareness in the communities

Establish a subsidy for CCP members

Provide uniform, ID card and transport for CCP members

Community participation in the preparation of management plan:

People refused to agree that fishing be stopped in the lake but identified areas of the lake where fishing should not be allowed (sanctuaries), and look forward to seeing the implementation of the management plan

2. COBUE ASSOCIATION

How long has the association existed?

Since 2008.

Why does it exist?

Four years ago, the fish resources of Lake Niassa were in decline. That was a serious problem, especially in the southern part of the lake, where unrestricted fishing had had disastrous economic consequences and loss of local biodiversity. Several important commercial species, such as tchila and tchambo, had been severely affected by intensive fishing in some parts of the lake. Tchila reproduces in the river; with chemical fertilizers, they die or flee. Small fish were killed. Some residents said that in three hours they would probably catch fewer than 100 fish. Some people said that some species of uthaca had disappeared in that area and others (tchila, mphassa) were caught less frequently than before. Furthermore, the fish caught were very small. People used very fine mesh nets. On the other hand, if

they used large mesh nets, they were unable to catch enough fish. The mesh for small fish is 1 ½; depending on the size, mesh 3, or 4 to 6.

Which had declined?

Gira, uthaca, njanjica, balule; ngua no longer is found.

Which had disappeared, or are disappearing?

Npassa, mauinga, blue fish = binga, tchambo had declined a lot. Campango, njanjica, congune, machimbo – there is a lot now.

Which disappeared and have not returned?

Tchongi, large peixe barba, nguo.

Cuncune is being found more. 200 bingas were caught in August.

Now the (human) population in the region is increasing every year. This is due not only to births, but also to the return of residents after the civil war. In addition, the numbers of fishermen and merchants had also grown significantly in the region. Where before there were no buyers, now there are more buyers and fishermen. Most of the fishermen involved in the encounters in the communities covered used to live in temporary camps and had come from Malawi, Tanzania and other places in Mozambique. Now there are few foreigners. The buyers come from Lichinga and Metangula, not much from Malawi (they don't like their money). There are a lot of cichlids, which are fished for bait, not to sell. There is a lot, but they don't eat much. Visitors want to see them.

What has changed in the region of Lake Niassa since that time?

The reserve. Training. When we kill, we are thinking of sustainability for our families. We used to get nothing, and suffer at home. Now fish are there. We sell 6 or ten where we used to sell two. WWF tells us and we transmit the message to the population. We are abandoning the use of mosquito nets in fishing. We don't use products in the river. But they are still used outside of the reserve. The fish are migratory. We thank WWF for our nets. It is our hope that all the species will return.

Do you use motorboats?

We don't have motors. Two people have. The Tonga association has one donated by WWF. Before, with rowboats, we didn't reach many fish. They don't suffer so much in the wind. They can take sick people to the hospital.

Is there anything bad about it?

They profit more and travel farther to catch more. The good thing is that they don't fish in the no fishing season. They use big nets.

How many members are there?

13 in Utonga, 10 in Cango.

Are they willing to accept more?

It is enough in Cango. Utonga hasn't closed its doors.

What about private fishermen?

There are many. It's hard to say.

We are all in the CCP. We thank WWF on behalf of the families and communities. We need to make one small boat, but we don't have an engine.

Does it benefit only the members?

No, the community. They buy at the association and give it away. They buy at the association to resell to anybody. One hand washes the other.

3. WOMEN'S FORUM, COBUE

(3 of the women present speak Portuguese.)

What are your roles?

Joana – president. Violeta – vice. Blandina – secretary.

Our role is to promote health and fight malaria. Pregnant women and babies need mosquito nets. They used to be grabbed by the men, now they are used against the mosquitoes. That conserves the lake. They have stopped putting fertilizer in the rivers, which ruins it. They have changed. Now there is less malaria. The Forum in Lichinga, with Teresa Anhangota, has acquired mosquito nets. We also fight HIV-AIDS and domestic violence. She was in the Forum Mulher, but went to Maputo two years ago. There was a WWF conference on the environment last month. Now one woman has 3 or 4 children, they used to have more. We raise awareness of family planning. The problem is the long distances and lack of transportation. Other people don't understand. The men demand help from the health care office. UMOJI and the police help. They bring condoms and the pill.

What was the origin of the forum here?

We saw the suffering of the women. CCS Centro Cooperativo Sueco.

Walking so far is a problem for Chigoma, Thessi – Nhanja. Lately Geraldo has been helping with transportation. In 2009, even before WWF, he started talking about the environment. He went public with WWF support. Gender and AIDS were already being discussed.

4. COMMUNITY FISHING COUNCIL (CCP) - COBUE

When was CCP created?

2009

Who promoted the creation of CCP?

DP Fisheries

How many members?

7 members of CCP

What was the motivation/reason to create CCP?

Before the CCP, mosquito nets were used for fishing, traps were laid at the entrance of rivers to catch fish species that migrate to reproduce in the river during the rainy season, uncontrolled fires were also frequent. With CCP mosquito nets and fishing in river entrances have been banned and uncontrolled fires reduced considerably. Responsible for mobilizing people. Whoever has a net has to pay tax. The inspectors (*fiscais*) control the LNR, prohibiting harmful practices and conserving resources. From January through May, the CCP president issues tax licenses. In June, the report to the inspectors is submitted, with the support of the local chief (*regulo*) and the local inspectors. A report is sent to the IDPPI. The money from the fines goes to the chief of station (*chefe do posto*). Starting in November, fishing in the rivers is prohibited. The Regional Fishing Directorate was created in 2009, at headquarters, to help the government control fishing in LNR.

Who can be a member of CCP? Any specific requirements?

People capable of controlling fishing are chosen by vote.

What is the job of CCP members?

Build awareness among community members of the need for sustainable natural resource management, and patrolling along the lake shore to detect and discourage people using mosquito nets and other destructive fishing practices.

What is the attitude of ordinary community members in relation to CCP members?

People did not react negatively because they agreed with the message from CCP to ensure the availability of resources for future generations. We are now using resources that previous generations used sustainably.

What are the benefits to CCP members?

The start of WWF project changed the way fisherman fish? If yes, what changed?

Yes, mosquito nets and other destructive fishing methods are being abandoned. But there we don't have our own material to use.

The start of WWF project changed the place where fisherman fish? If yes, what changed? Yes, people no longer fish at the mouths of rivers. They fish where there is no buoy.

The start of WWF project changed the time of the year for fishing? If yes, what changed?

The management plan indicates periods. It is under study by three ministries, not being implemented. [DPPI specialist intervenes] There are changes. As an institution, we are under pressure. There have been successes in the district. Other districts are receiving requests. Where there are CCP's, OK; in other places, there are conflicts.

How do you compare the number of fishermen before and after the start of WWF project and creation of CCP?

There has been a population increase, and an increase in the number of fishermen. There is an increase of fishermen with licenses.

How do you compare the number of illegal fishermen before and after the start of WWF project and creation of CCP?

Illegal fishing dropped considerably.

How do you compare the time necessary to catch the same amount of fish before and after the start of WWF project?

In the nineties, it was easy. There was a crisis in 2002-03. It started getting better in 2010. Now in two hours we have fish; before it wasn't like that.

How do you compare fish diversity before and after the start of WWF project?

Fish diversity is increasing, there are fish species that had disappeared and now they are coming back.

Ntsila was rare. Now in the rainy season there is a lot.

What are the five most important fish species?

Tchambo, ussipa, uthaca, kampango, ntsila, maximbu, mbalule

Is there any fish variety that you see in the last 5 years, which had disappeared in the years 2002-2003 – period of crisis in fisheries?

Sandjica, ndjila, phanda, ningue, xibumbo, nkalala

Is there any fish variety that disappeared and you don't see anymore?

Uthaca, mphassa, nkasindjelo, ngua, thamba, ndjolo. But uthaca is caught some 20km north of Cobue. Nglocola (with the long bone) ngizi, nmbumbo, ngomo-less. The peixe-barco disappeared.

Before they didn't use hidromax; now, with illumination. Before, petromax was rare. It's not bad. Used more at night, to catch sardines and uthaca.

We have a boat, in the navy yards. We have to get permission to use it. It winds up being for the foreigners. We wear common clothing, and people ask, who are you? They want to steal from us. We have no material for fishing, we just do repairs. No boat, no telephone. Some of the people aren't very satisfied with the CCP.

What more could be done?

[A woman speaks] There are no resources. There is no adequate inspection team. They are not well motivated. Everybody drops out. We do have the statute of the Ministry of Fishing. There has to be motivation. [APPLAUSE]. We go out to do awareness raising, and return home empty handed. It doesn't help. There were 15 members. Today one died, so there are 14. Two are in jail. There are 12 new members. They give up and don't come to the meetings. They are discouraged. [A man speaks] We met with disdain. WWF tried to help with T-shirts, etc., but now that's over. We don't have a boat any more, it's in the hands of the military. It's controlled: we have to go to WWF to request permission – to work in an inspection area!

Did the CCP participate in the drafting of the management plan? What are the expectations for approval? What can improve?

[Specialist] All the CCP's were involved. At the last meeting, they said "see you in one month." It's been four months, and nothing is happening. The plan depended on sentiment. Request a project to take the inspectors into account! Means, resources! There have been many complaints. The wages are unsatisfactory. 2500 or 2000 meticais is inadequate. They only use the boat to inspect timber. SDAE lacks the means. The CCP administration needs a small subsidy! [Applause].

Is there any fish variety that was rare but is increasing in abundance in the last 5 years?

Tchambo, mawinga, ussipa, utsene, matximbu, peixe barba, kampango. Ussipa increased sharply after the abandonment of mosquito nets that were capturing juveniles (now proper fishing nets to catch adult ussipa are being used). Tchambo declined severely when there was no control of fishing practices, but from 2005 when fishing in the entrance of rivers was prohibited, the abundance increased.

Is there any fish variety that has always been rare and remains rare?

Mbalule, ngolokolo, tchangue

Why have ussipa and tchambo been increasing?

Before there was no control. They used mosquito nets to catch ussipa. Now most don't fish for fish with eggs in their bellies.

Positive impacts

The work of CCP has changed the attitude of fishermen positively towards sustainable fishing through abandonment of destructive methods. The CCP meets every two months.

Challenges

We have no funding.

Lack of transportation for CCP.

There is a need of more training for CCP in sustainable fishing methods and practices.

Exchange of experiences with CCP's of other regions.

Sometimes somebody will put his net on top of somebody else's net, causing conflicts which must be resolved.

There is no control of illegal hunting.

5. COMMUNITY GUARDS - METANGULA

When were the community guards established?

2007

Who promoted the creation of community guards?

WWF, but they were selected by community leaders and local government for training in Gorongosa for 45 days

Reason for establishing community rangers?

Decline of lake biodiversity, several species threatened by Extinction, use of mosquito nets, small mesh nets and poison for fishing in the rivers. There was a need for community guards to patrol and enforce the law.

How many members?

What is the routine activity of community guards?

Between 2007 and 2010: awareness campaigns to discourage the use of destructive fishing methods. From 2010, SDAE decided to use community guards for patrolling forests and forest products. For SDAE the priority is forest, not fisheries. The result is that both patrolling and awareness campaigns for sustainable fishing dropped drastically from 2010.

What is the relationship with the CCP?

They work closely together. While CCP mainly works on building awareness, community guards are more involved in patrolling and law enforcement

What is the relationship with CCP?

Work closely with SDAE, when guards have difficulties they call rangers from SDAE, particularly to issue fines for illegal harvesting of resources

What are the main challenges that community guards face?

The first and last time guards received uniforms was in 2007 (6 years ago), lack of radios for communication for effective patrolling, lack of transportation (guards do not have a boat to patrol the lake even if they see illegal fisherman, the last time guards used a boat was in 2009, to use the boat it is necessary to write a letter to the Navy. Community guards do not have power to fine illegal harvesters of natural resources. To fine for illegal fishing, the fisheries ranger comes occasionally from Lichinga, which is not effective.

What is the impact of community guards on biodiversity conservation?

Before guards started working there was widespread use of mosquito nets, nets with small mesh for dragging, use of poison in the rivers. With awareness campaigns promoted by WWF, destructive fishing methods are no longer used. This increased the fish catches (according to fishermen). Species that were affected by the use of mosquito nets such as ussipa, are recovering abundance and yields rapidly.

6. COMMUNITY GUARDS - MELULUCA

When were the community guards established?

2010

Who promoted the creation of community guards?

WWF, but they were selected by the community and submitted to a training course of 45 days in Metangula. After the completion of training the guards went back to the community to build awareness on sustainable use of natural resources and to patrol/law enforcement

How many members?

11 community guards

What is the routine activity of community guards?

Patrolling the shoreline of the lake and the forest. The guards wait for illegal fisherman on shore because they lack boats to follow fisherman in the lake

What is the relationship with CCP?

They work closely, while CCP mainly works on building awareness, community guards are more involved in patrolling and law enforcement

What is the relationship with SDAE?

They work closely with SDAE, when guards have difficulties they call rangers from SDAE

What are the main challenges that community guards face?

Lack of communication for effective patrolling (e.g. radio), lack of transportation (guards do not have a boat to patrol the lake even if they see illegal fisherman and do not have vehicle to patrol the forest), lack of rifles for self defense

What is the impact of community guards on biodiversity conservation?

Before guards started working there was widespread use of mosquito nets, nets with small mesh for dragging, use of poison in the rivers, illegal logging, illegal fishing by Malawians and Tanzanians. With awareness campaigns promoted by WWF, destructive fishing methods are no longer used. This increased the catches of uthaca and tchambo, which has made people very happy.

Positive aspects

WWF should continue this project, with frequent visits to community to discover the day to day challenges, and promote community consultation in all stages of reserve management

Negative aspects

Very little subsidy (1789 meticaïs), guards have had no contract since they were trained and are worried because apparently WWF will terminate the project in December 2013. During training, there were promises that guards would be integrated into the government rangers after the end of WWF project, but they don't see progress on this matter. Guards have no rations during patrolling activities, they have to use their little subsidy to buy food. There is no transport, which reduces the number of days of patrolling due to a need to skip days to rest. There is a need of a boat for patrolling the lake.

7. COMMUNITY GUARDS - COBUE

When were the community guards established?

2007

Who promoted the creation of community guards?

WWF, but they were selected by the community and submitted to a 45 day training course in Gorongosa.

How many members?

What is the routine activity of community guards?

Patrolling the shore line of the lake and the forest. The guards concentrate patrolling on the shore of the lake because it is easier without transport (but they don't detect illegal fishermen that stay in the lake), whereas patrolling the forest without a vehicle is difficult because where illegal activities take place is far from the village

What is the relationship with CCP?

They work closely; while CCP mainly works on building awareness, community guards are more involved in patrolling and law enforcement

What is the relationship with SDAE?

Work closely with SDAE, but due to long distance from Cobue to Metangula, guards send reports to SDAE every two months.

What are the main challenges that community guards face?

Lack of communication and transportation, uniform received only in 2007 (6 years ago), guards never had training, seminar, exchange of experience

What is the impact of community guards on biodiversity conservation?

8. UMOJI ASSOCIATION

Community Based Organization (CBO) legally constituted; it manages the conservation project of Manda Wilderness, about 120,000 ha

Established in 2003, composed of 16 communities, some of which within the buffer zone of LNR in its northern half.

UMOJI was created with the objective of conserving natural resources, as a way of generating income for the socioeconomic development of local communities. We gave it the name of Manda Wilderness. We formed a management committee, wrote bylaws, and got a certificate. To dialogue with the government and investors.

We are in a phase of disappearance of animals and trees. Before, there was firewood a few meters from our homes; now we have to walk 3-5 km to get it.

Before the establishment of UMOJI there was unprecedented degradation of forest and wildlife resources, threatening the availability of these resources in future generations.

Manda wilderness belongs to UMOJI. It is managed by a management committee with four representatives from all villages. At UMOJI there are elections (general assembly) every two years. So far there have been two. The last election was in 2010. There were 4 candidates for president. It lasted 3 days. The current president has held the office since their beginning. The secretary was also re-elected; the other officers are new.

Routine activities of UMOJI: At each community there are natural resource management committees that function as the link between each community and UMOJI leaders, build awareness of sustainable use of natural resources, including prevention of uncontrolled fire (with great support from WWF).

Most of the UMOJI area does not have human settlements, it is reserved for wildlife.

The management committee is the link between UMOJI and the community. Although it raises awareness, the burnings don't stop. It holds seminars on man-animal conflicts and sustainable resource management. There is an area reserved for conservation of the forest and animals. According to the capacity of each, they set aside 1/3 of the vegetable patch.

To promote community development, tourism is another goal. There is a fund, and its operator designates part of it for the community.

The Swedish Centro Operativo Sueco helped UMOJI to set boundaries of the concessions (Manda Wilderness) and get DUAT (Direito do Uso e Aproveitamento da Terra – Right to Use and Employment of Land). WWF supported UMOJI in awareness campaigns about LNR, conservation agriculture (demonstration plots), prevention of uncontrolled burning, training in fish processing. With Swedish Money we bought office equipment. WWF strengthens UMOJI, raises awareness and acts as a conservation agency.

The contribution of UMOJI to the local economy will be through attracting tourism investors. A safari operator has been identified, but the density of animals is still low due to poaching in the area. It is predicted that when the operator starts, there will be recruitment and training of game guards for Manda Wilderness. A memorandum of understanding has been signed. It would be 120,000 ha, which is 3 times the area of Manda Wilderness, and would be with 5 of the 16 communities. Each community has a boundary certificate. Each chieftain receives 10% and negotiates how to distribute the benefits, asking how much is to be invested in each. 32 of the communities are not satisfied.

There is a buffer zone of 4-20 km.

Environmental awareness for the establishment of LNR was relatively easy for WWF in the north of LNR (Cobue, etc.), because local communities already had positive attitudes to conservation as a result of the work done by UMOJI since its creation.

WWF is a great UMOJI partner, it strengthened UMOJI to contribute to the achievement of its conservation goals; for example, WWF provided funds for UMOJI to create fishing associations in Chicaia and Litanda. The associations were then supported by WWF/UMOJI in fishing materials such as nets, including appropriate nets to catch adult ussipa and abandon the use of mosquito nets. With the profit from fishing some associations built boats.

WWF provided funds for different institutions to build the capacity of UMOJI. For example: UCA trained UMOJI in conservation agriculture, IDPPE trained UMOJI in fish processing and SDAE trained UMOJI in the management of human-wildlife conflicts.

UMOJI does follow up the activities of associations that benefitted from their support. Some associations are fishing profitably.

[The superior chieftain says] clandestine hunters and all the game are sent to Manda Wilderness. They also come from Lechinga, Metangula and Malawi.

The communities interact with WWF. Buela and Uchesso say they are integrated in the conservation policy. Luchesi and Lucefa say they want to work but WWF doesn't let them.

Manda wilderness needs more support to improve patrolling against poaching.

Impacts of WWF

The reserve is new, so there is more work to be done, which requires funding. There is a need for approval of a management plan to start the implementation of management activities such as the sanctuaries and the off season period for fishing.

Before WWF the use of mosquito nets for fishing was widespread in the reserve, but with the activities of CCP and community guards, people have changed fishing methods.

ANNEX 8: DATA COLLECTION INSTRUMENTS

- **INTERVIEW SCHEDULE FOR PROJECT IMPLEMENTERS AND STAFF**
 - **INTERVIEW SCHEDULE FOR HOTELS AND LODGES**
 - **INTERVIEW SCHEDULE FOR INSTITUTIONS**
 - **HOUSEHOLD QUESTIONNAIRE – GORONGOSA**
 - **HOUSEHOLD QUESTIONNAIRE – LAKE NIASSA 1**
 - **HOUSEHOLD QUESTIONNAIRE – LAKE NIASSA 2**
-

1. INTERVIEW SCHEDULE FOR PROJECT IMPLEMENTERS AND STAFF

(This is a study to evaluate the contribution of Gorongosa Restoration Project or Lake Niassa Reserve to the conservation of nature, development of tourism and improvement of livelihoods of local communities)

Name of the project: GRPLNR

Date:

Section 1. Project effectiveness

1.1. Activity design and inputs

What is the objective of the project?

.....
.....

What is the biological importance of the site? (indicators of biological importance: number of rare, threatened or endangered species, degree of endemism, critical landscape function, contribution to the representativeness of national protected area system)

.....
.....

What is the socio economic importance of the site? (indicators of socio economic importance: employment for local communities, dependence of communities on natural resources, community development opportunities through sustainable resource use, ecosystem services, recreational and educational value)

.....
.....

..... What are the boundaries of the protected area? Were local communities involved in defining protected area boundaries?

.....
.....
.....
What is the annual budget for biodiversity conservation and tourism activities during the period of project implementation?

.....
.....
What facilities and equipment does the project have to implement activities aimed at achieving project objectives?

.....
.....
What are the main threats and pressures that threaten the achievement of project objectives?

.....
.....
How many staff members are involved in biodiversity conservation and tourism activities? by categories (managers, ecologists, game guards, etc.)

.....
.....
Do you face any policy and or institutional constraints to plan and implement biodiversity conservation and tourism activities?

.....
.....
Are there training and capacity building programmes for staff and local communities?

1.2. Management processes

Does the protected area have species inventories, list and distribution map of rare, endemic and threatened species? Habitat maps? No..... yes.....

.....
.....
Does the protected area have a management plan? NoYes To what extent is it being implemented?

.....
.....
What are the research and monitoring activities conducted since the USAID financial support began? Please indicate type and number of activities

.....
.....
Who is involved in research and monitoring activities?

.....
.....
What are the routine activities for species and habitat management?

.....
.....
What are routine activities to strengthen collaboration with local communities and other stakeholders?

.....
.....
What tourism services does the protected area provide to tourists?
.....

What is the average number of tourists that visits the protected area per year?
.....

What is the average length of stay of tourists in the protected area?
.....

What are the restrictions on the use of natural resources by local people within protected area boundaries? If any do exist, are alternative livelihood sources provided?
.....
.....

Are local communities involved in biodiversity conservation and tourism activities? No
.....yes..... if yes, what is their roles?.....

Is there any management board/committee with seats for community members? Yes
.....no

Do local communities participate in decisions that affect them? Yesno.....if
yes, how?

Section 2. Project impact

Ecological impact

What are the trends in wildlife populations and land cover (habitat integrity) (data available?).....

What is the trend in occurrence of illegal activities such as poaching, logging, mining, illegal fishing, uncontrolled fires within the Gorongosa or LNR boundaries?
.....

How do you compare the status of biodiversity before and after the implementation of GRP or LNR (species, habitats, pressures and threats)?
.....
.....

Social impact

How many staff members have been recruited from local communities? (jobs created)
.....

Are there economic benefits to communities living in and around the protected area? Please indicate

How do you describe the attitudes of local people in relation to protected area objectives, boundaries and management actions? Positivenegativeneutralplease explain.....
.....

Section 3. Project sustainability

What are the sources of budget? Please indicate percentages from each source

.....

How many staff members are Mozambicans, by category (managers, ecologists, game guards, etc.)

.....

How many staff members were recruited in local communities, by category (managers, ecologists, game guards, etc.)

.....

What are the project foreign senior staff doing to build Mozambican capacity?

.....

.....

Who is involved in planning and implementing research, monitoring and management activities?

Do local people support biodiversity conservation activities? What other stakeholders support the project?

.....

What would you do differently in the future to better achieve project goals? (What were the positive and negative things that you would repeat and avoid, respectively?)

.....

.....

Specific to Arco Norte

Could you please briefly describe project goals and the implementation approach?

Did tourist arrivals increase? (is baseline data available for comparison to detect impacts?)

Did their expenditures increase? (length of stay, services provided, etc) is baseline data available for comparisons to detect impacts?

How much investment was there? (In the three target provinces)

What were the priorities for investment? and how the beneficiary were identified?

How many jobs were created?

What kinds of jobs were created?

How many service providers were trained?

What is the evidence regarding their achievement in the training courses?

Is the conservancy functioning? No.....yes.....if yes, who manages the conservancy?

What was the objective of creating the conservancy?

What resources were invested in creating and managing the conservancy?

Is the COGEP (Conselho Local de Gestão Participativa de Recursos) functioning, with members of the four specified groups? [equal numbers of representatives from (1) local communities, (2) businesses (individuals or companies), (3) associations or NGOs, and (4) the state]

Are the provincial and Arco Norte forums functioning?

Are the tourism associations functioning?

- FEMOTUR (Federation of Mozambican Tourism Associations)
- NORAHTUR (Federation of Arco Norte Hotel & Tourism Association)
- CDTUR (Cabo Delgado Hotel and Tourism Association)
- AIHTUN (Niassa Hotel and Tourism Association).

How to you compare water quality before and after project implementation?

Maintained.....improved.....declined

How to you compare fishery yields before and after project implementation?

Maintained.....improved.....declined

Is the tourism development company functioning?

Is the master plan being implemented?

Are the Zonas de Interesse Turístico functioning?

Did Arco Norte play a role in the establishment of Lake Niassa Reserve?

Did the project face any political or institutional constraints during its implementation?

Please explain

What was the role of national, provincial and district Government authorities in the implementation of the project?

Did the project contribute toward strengthening partnerships between stakeholders (i.e., private sector, public and local communities? Noyes.....please explain

What were (are) the benefits to local communities?

Do you think project goals were achieved in terms of the *triple bottom line* (commerce, conservation, community/culture)?

What were the main challenges and threats to the achievement of project goals?

What is the legacy of Arco Norte?

What can be learnt from the project? And what would you do differently in implementing a similar project?

Thank you very much for your collaboration.

2. INTERVIEW SCHEDULE FOR HOTELS AND LODGES

Name of the Organization:

Address:

Tel. #:

Fax:

Website:

E-mail:

Main Contact Person:

Position:

E-mail:

Tel. # (day)

Tel. # (night):

Section 1: Enterprise Information

1. When did the enterprise first open to tourists? Month/Year

2. What is the primary geographic region of the enterprise? Choose one that best describes the location.

Coastal Forest/Jungle

Mountain Agricultural Zone

Other (specify):

3. Describe the location of the enterprise.

What is the name of the closest city?

How far away is it? km

What is the name of the closest major airport?

How far away is it? km

4. What is the theme of the enterprise? Choose all that apply.

Environment & Wildlife Cultural Agrotourism

Mystic Tourism Historical Adventure

Other (specify):

5. What types of accommodations are available and what are the rack rates in USD please? Write

N/A if the type of accommodation is non-applicable.

Accommodation	Price in Low Season	Price in High Season	Is the price per person or per room?
Camping			Per person Per room
Cabins			Per person Per room
Home stay			Per person Per room
Hotel			Per person Per room
Other (specify)			Per person Per room

6. What is the maximum capacity of the enterprise?

7. Which countries do the majority of tourists come from?

Country 1:

Country 2:

Country 3:

8. How many people stayed at the enterprise overnight in the past year (12 months)?

How many nights did each person stay for, on average?nights

9. On average, what is the percent of occupation during each season? Please specify which months make up your enterprise's seasons.

Low Season Months:

High Season Months:

Easter Break

10. Apart from overnight stays, how many additional day visitors did you have in the past 12 months?

11. On average, how much does a tourist spend in USD on food per day?

12. Please write a list of the activities/excursions that the enterprise offers and how much each costs (USD, please). If there is a more convenient way to provide us with this information, such as going to your website or sending us an attachment, please include that here.

Section 2: Ownership, Employment and Community Benefits

1. Who are the owners of the tourism business?

Individual entrepreneurs

Corporation

Community Organization

Non-governmental Organization (ONG)

Other (specify):

2. Who originally funded the tourism business?

NGO Private Sector

Government Other (specify)

3. What were your annual revenues?

2010

2011

2012

4. What are the average monthly labor expenses for the enterprise in USD (include full and part time employees)?

5. What are the average monthly operational expenses in USD? (rent, electricity, food, transportation, equipment, maintenance, etc.)

6. After paying your expenses, how were the profits distributed? (in percentages)

Reinvestment in the enterprise

Individual community members

Community or NGO projects

%- Education

%- Health

%- Community Infrastructure

%- Conservation

%- Other (specify)

Environmental Protection

Other (specify):

7. Does the enterprise profit?

No Yes

8. If yes, how much in the following years:

2010

2011

Guide training											
Internet training											
Linking to other potential marketing partners											
Language training											

3. Which marketing methods have received the most responses?

Method	Very Effective	Effective	Some-what Effective	Not Effective	N/A	Don't know
Brochure						
Posters, banners, etc.						
Local tourism businesses						
Word of mouth						
Tour guides						
Internet (specify websites)						
Newspaper/Magazine (specify)						
Trade Shows						
Local People						
Tour Operators (specify)						
Government						
NGOs (specify)						
Tourism association						
Others (specify)						

4. What type of training is most needed?

Training	Very needed	Needed	Somewhat needed	Not needed	N/A
Management					
Staff Training/Operations					
Best Practices Training (Social and Environmental)					
Marketing/Internet Training					

Guide					
Language (specify):					
Other (specify):					

5. Which style of training has been most effective?

Workshops

Exchange programs

Other (specify):

Section 4: Protected Areas

1. Is the enterprise near protected areas? Yes No Inside

If you responded no, please move on to Section 5.

a. Name: How far away is it? km

b. Name: How far away is it? km

c. Name: How far away is it? km

2. On average, what percentage of your guests visits the protected area during their stay?

25% 50% 75% 100%

3. Does the enterprise offer guides or other tourist services (i.e. transportation) to the protected area?

Yes No

4. On average, what percentage of your guests is motivated to stay at your facility due to the protected areas?

25% 50% 75% 100%

5. Does your publicity mention the protected areas as one of the attractions of the area?

Yes No

6. Does the enterprise have a relationship with the personnel of the protected area in regard to working together on the management of protected areas and tourism?

Yes No

7. What are other benefits that the enterprise receives due to its proximity to a protected area?

Section 5: Limitations

What are most important barriers to building your enterprise?

Not enough market

Remote location

Communications with partners

Lack of publicity

Divisions in the community

Skills (specify)

Other (specify)

Please note any other issues that are not captured in this questionnaire, which you think are of value or interest to tourists and tour operators.

Thank you for your help.

3. INTERVIEW SCHEDULE FOR INSTITUTIONS

Section A. Tourism

Name of the Institution:

1. What is the mandate of the institution (brief)?, indicate Decree if possible:
2. What are the main tourism products that the country offers? Choose all that apply.

Environment & Wildlife

Culture and history

Beach

Other (specify):

3. Which actions are being taken by the institution to diversify tourism products?
4. What are the policies, plans and strategies in place to promote the development of sustainable tourism?
5. To what extent are the objectives of policies and strategies being achieved?
6. Does the tourism industry aim more at domestic or foreign tourists?
7. What are the activities carried out by your institution to increase arrivals of foreign tourists in the country?
8. What is the marketing strategy used by the institution to transform the country into a better tourism destination?
9. What are the activities carried out by the institution to increase the investment in infrastructure for tourism development?
10. What are the activities carried out by the institution to promote the establishment of public-private and private-community partnerships?
11. What are the fiscal incentives to the growth of the tourism industry?
12. How has your institution taken advantage of them?

13. What was the objective of the institution in implementing the Northern Mozambique Tourism Program (Arco Norte)?
14. What resources (human, financial, etc.) were made available by the institutions for the achievement of the objectives of Arco Norte?
15. What were the roles of INATUR and the Direcção Nacional do Turismo in the implementation of Arco Norte?
16. What was the relationship between MITUR, INATUR, Direcção Nacional do Turismo, Nathan Associates and USAID in the implementation of the Arco Norte project?

What were the main institutional challenges during the implementation of Arco Norte?
17. Are the tourism associations functioning?

FEMOTUR (Federation of Mozambican Tourism Associations)

NORAHTUR (Federation of Arco Norte Hotel & Tourism Association)

CDTUR (Cabo Delgado Hotel and Tourism Association)

AIHTUN (Niassa Hotel and Tourism Association).

18. What is the relationship between INATUR, the tourism associations and private investors?
19. What type of training is most needed for the staff of your institution with regard to biodiversity conservation and tourism development?
20. What other institutional strengthening activities do you think are need with regard to biodiversity conservation and tourism development?
21. Did Arco Norte contribute to strengthening the capacity of INATUR to follow up the activities started by the project?

22. What are most important barriers to increasing the number of tourist arrivals in the country?

Not enough market

Remote location

Lack of publicity

Air transportation

Ground transportation

Infrastructure

Visa procedures

Other (specify)

23. What do you think should be done to overcome the limitations to increasing tourist arrivals?

24. Are the Zonas de Interesse Turístico functioning?

25. What has been the role of national, provincial and district government authorities in the implementation of the project and follow-up activities?

26. What is the legacy of Arco Norte?

27. What can be learnt from the Arco Norte project? And what would the institution do differently in implementing a similar project?

Section B. Biodiversity Conservation

1. Name of the Institution:

2. Mandate of the institution (brief), indicate decree if possible:

.....

3. What is the objective of the establishment of the Lake Niassa Reserve?

4. What is the role of the institution in the implementation of the Lake Niassa Reserve?

5. What has been the relationship between MICOA-MITUR-MPESCAS-WWF-USAID in the implementation of Lake Niassa Reserve?

6. What is the role of the institution in the implementation of the Gorongosa Restoration Project (implementation of the Long Term Agreement with the Carr Foundation)?

7. Were local communities involved in defining protected area boundaries?

8. What is the annual budget provided by the institution for biodiversity conservation and tourism activities?
9. What facilities and equipment does the institution provide for the implementation of activities aimed at achieving the objectives of establishing the Lake Niassa Reserve?
10. How many staff members of this institution work directly in the implementation of the Lake Niassa Reserve?
11. What is the institutional setup for the implementation of the Lake Niassa Reserve? (national, provincial and district levels)? What are the institutional linkages and level of collaboration?
12. What are the roles of the state, private sector, local communities and other stakeholders in the implementation of the Lake Niassa Reserve?
13. What do you think is the impact of the implementation of the Lake Niassa Reserve with regard to: (a) biodiversity conservation, (b) tourism development and (c) socio economic benefits to local communities?
14. What is the impact of the establishment of the Lake Niassa Reserve on fisheries yield?
15. What can be learnt from the Arco Norte project? And what would the institution do differently in implementing a similar project?

4. HOUSEHOLD QUESTIONNAIRE – GORONGOSA (13 – 20 AUGUST)

Khulisa GNP

Language

1 Choose language

[Language1]

₁ English

₂ Portuguese

sg

2 Biodiversity Conservation and Tourism Evaluation

Khulisa (Gorongosa National Park)

intro

3 What is the name of the community?

[intro]

Location

4 Please record the exact location of where you are.

[Location]

GPS

5 Please capture GPS Co- ordinates

Answer: _____

intro1

6 This is a study to evaluate the contribution of Gorongosa Restoration Project or Lake Niassa Reserve to the conservation of nature, development of tourism and improvement of livelihoods of local communities.

Explain that all answers are confidential and that no one will know your name. Take photo (if the person wishes) it could be of their house, the field, their back, etc. Note location on GPS for mapping.

Remember 50% of respondents have to be between 18 and 35 and 50% female interviewed by the females. On average 5 interviews should be conducted per hour, resulting in at least 30 interviews per 8 hour day per fieldworker. We should have approximately 720 total responses.

Project Manager:

Language: English - United States

Transaction ID: 1530

Project Mode: Live

Print Date: Aug 27 2013 at 02:00:06 PM

Section 1: HOUSEHOLD CHARACTERISTICS

7 Section 1: HOUSEHOLD CHARACTERISTICS

Q1

8 Can we speak in Portuguese?

[Q1]

1 Yes

2 No

q1.1

9 if no, which language do you prefer?

[Note the language the interview was conducted in from this point.]

[q1_1]

name

10 NAME OF RESPONDENT

[name]

AGE

11 AGE OF RESPONDENT

[AGE]

1 UNDER 18

2 18 - 24

3 25 - 34

4 35 - 49

5 50+

Q2

12 Sex

[Q2]

1 Male

2 Female

Q3

13 What year were you born? (Approximate)

(Fieldworker, help to estimate if respondent is struggling with this questions -- check to make sure it is before 1995, anyone born later than 1995 is not old enough to participate in the survey)

[Q3]

Answer: _____

Q4

14 Were you born in this area?

[Q4]

- ₁ Yes
- ₂ No
- ₃ Not sure

q5

15 Do you consider this area your home

[q5]

- ₁ Yes
- ₂ No
- ₃ Not sure

q6

16 If yes, were you born around here?

[q6]

- ₁ Yes
- ₂ No

q7

17 If no or not sure, where is your home?

(Note another village in the same region, another province, another country (e.g. Malawi))

[q7]

q8

18 Why did you come here?

[q8]

How long since you came here

19 How long since you came here?

answer in years (1 for 1 year or less, 2 for years etc.)

[How_long_since_you_c]

Answer: _____

q9

20 What is your marital status?

[q9]

- 1 Married/Living together like married partners (customary marriages)
- 2 Single/never married
- 3 Polygamous marriage
- 4 Widowed/Separated or Divorced

q10

21 Do you have children?

(if the individual indicates they do not know, mark no)

[q10]

- 1 Yes
- 2 No

Q105

22 What is the highest level of school you completed?

[Q105]

- 1 Alphabetization
- 2 Primary (EP1)
- 3 Primary (EP2)
- 4 Secondary Education (1Ciclo)
- 5 Secondary Education (2Ciclo)
- 6 Elementary Technician
- 7 Basic Technician
- 8 Middle Technician
- 9 Vocational Training
- 10 Advanced
- 98 Nenhum

Section B: LIVELIHOOD STRATEGIES

23 Section B: LIVELIHOOD STRATEGIES

Project Manager:

Language: English - United States

Transaction ID: 1530

Project Mode: Live

Print Date: Aug 27 2013 at 02:00:06 PM

Q9.1

24 What do you do for a living?

- 1 Studying
[Q9_1.Studying]
- 2 Job (earning regular money)
[Q9_1.Job__earning_regular]
- 3 Farming
[Q9_1.Farming]
- 4 Herding or Raising Livestock
[Q9_1.Herding_or_Raising_L]
- 5 Harvesting Trees
[Q9_1.Harvesting_Trees]
- 6 Harvesting fruit, seeds, nuts, roots, leaves,
honey for use or selling (including medicinal
plants) from the bush
[Q9_1.Harvesting_fruit__se]
- 7 Hunting
[Q9_1.Hunting]
- 8 Selling food
[Q9_1.Selling_food]
- 9 Casual Labour
[Q9_1.Casual_Labour]
- 10 Fishing
[Q9_1.Fishing]
- 11 Services (e.g. repairing shoes, carpentry,
builder, etc.)
[Q9_1.Services__e_g_repair]
- 12 Professional Services (teaching, medical,
governing)
[Q9_1.Professional_Service]
- 13 Childcare
[Q9_1.Childcare]
- 14 Traditional healer/Midwifery
[Q9_1.Traditional_healer_M]
- 15 Other
[Q9_1.Other1]

start studying

25 Section: start studying

Studying

26 Studying (Enter 0 or "n/a" if the next questions are not applicable)

hour1

27 How many hours a week do you spend studying during the wet season?

[hour1]

Answer: _____

hour1.1

28 How many hours a week do you spend studying during the dry season?

[hour1_1]

Answer: _____

specify1

29 When do you most usually study? Is it during a specific season, or a few times a year? Please explain.

[specify1]

Where

30 Where do you study? Please explain.

[Where]

opportunities

31 Are there more opportunities to study now, compared to five years ago? Please explain.

[opportunities]

end Studying

32 Section: end Studying

start job

33 Section: start job

Job

34 Job (earning regular money) (Enter 0 or "n/a" if the next questions are not applicable)

Project Manager:

Language: English - United States

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Hours2

35 How many hours a week do you spend working during the wet season?

[Hours2]

Answer: _____

Hours2.2

36 How many hours a week do you spend working during the dry season?

[Hours2_2]

Answer: _____

specify2

37 Do you work during a specific season, or a few times a year? Please explain.

[specify2]

relation

38 Is your job related to tourism or conservation?

[relation]

₁ Yes

₂ No

WHere2

39 Where do you work and what is the nature of your job? Please explain

Where do you work?

[WHere2.Place_of_work]

What is the nature of your job? [What do you do?]

[WHere2.Occupation]

end job

40 Section: end job

start farming

41 Section: start farming

farming

42 Farming (Enter 0 or "n/a" if the next questions are not applicable)

hours3

43 How many hours a week do you spend farming during the wet season?

[hours3]

Answer: _____

hour3.3

44 How many hours a week do you spend farming during the dry season?

[hour3_3]

Answer: _____

specify3

45 Do you farm during a specific season, or a few times a year? Please explain.

[specify3]

percentage

46 What percentage of your crop do you sell?

[percentage]

Answer: _____

influence

47 Has LNR or GNP changed the way you farm? Please explain.

[influence]

end farming

48 Section: end farming

start herding

49 Section: start herding

Herding or Raising Livestock

50 Herding or Raising Livestock (Enter 0 or "n/a" if the next questions are not applicable)

hours4

51 How many hours a week do you spend herding or raising livestock during the wet season?

[hours4]

Answer: _____

Hour4.4

52 How many hours a week do you spend herding or raising livestock during the dry season?

[Hour4_4]

Answer: _____

specify4

53 Do you herd or raise livestock during a specific season, or a few times a year? Please explain.

[specify4]

percentage2

54 What percentage of your livestock do you sell?

[percentage2]

Answer: _____

grazing

55 Do you use park land to graze your livestock? Do you use park land for anything relating to your livestock? Please explain.

[grazing]

end herding

56 Section: end herding

start harvesting

57 Section: start harvesting

Project Manager:

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Project Mode: Live

Harvesting Trees

58 Harvesting Trees (Enter 0 or "n/a" if the next questions are not applicable)

hours5

59 How many hours a week do you spend harvesting during the wet season?

[hours5]

Answer: _____

hours5.5

60 How many hours a week do you spend harvesting during the dry season?

[hours5_5]

Answer: _____

specify5

61 Do you harvest during a specific season, or a few times a year? Please explain.

[specify5]

where5

62 Where are your trees located? If in the park, what is the approval process? Please explain.

[where5]

timber

63 What do you do with your timber?

1 make firewood

[timber.firewood]

2 make charcoal

[timber.charcoal]

3 boat construction

[timber.boat_construction]

4 make poles to build houses

[timber.poles_to_build_houses]

5 Other

[timber.Other1]

timberother

64 Other (Specify)

[timberother]

end hsrvesting

65 Section: end hsrvesting

start fruit

66 Section: start fruit

Harvesting fruit, seeds, nuts, roots, leaves, hone

67 Harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush (Enter 0 or "n/a" if the next questions are not applicable)

hjours 6

68 How many hours a week do you spend harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush during the wet season?

[hjours_6]

Answer: _____

hours6.6

69 How many hours a week do you spend harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush during the dry season?

[hours6_6]

Answer: _____

specify6

70 Do you harvest fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush during a specific season, or a few times a year? Please explain.

[specify6]

where6

71 Where are these plants located? If in the park, what is the approval process? Please explain.

[where6]

product

72 What do you do with your harvest?

1 Sell raw

[product.Sell_raw]

2 Use for ourselves

[product.Use_for_ourselves]

3 Use as part of production? (e.g. make jam)

[product.Use_as_part_of_production__e_]

4 Other _____

[product.Other1]

productother

73 Other (Specify)

[productother]

end fruit

74 Section: end fruit

start hunting

75 Section: start hunting

Hunting

76 Hunting (Enter 0 or "n/a" if the next questions are not applicable)

hour7

77 How many hours a week do you spend hunting during the wet season?

[hour7]

Answer: _____

hours7.7

78 How many hours a week do you spend hunting during the dry season?

[hours7_7]

Answer: _____

specify7

79 Do you hunt during a specific season, or a few times a year? Please explain.

[specify7]

hunt

80 Do you hunt in and around the GNP/LNR?

[hunt]

₁ Yes

₂ No

what do

81 What do you hunt? Please explain.

[what_do]

why hunt

82 Why do you hunt?

₁ For meat/skin/trophy

[why_hunt.For_meat_skin_trophy]

₂ For own use

[why_hunt.For_own_use]

₃ To sell

[why_hunt.To_sell]

₄ Other _____

[why_hunt.Other1]

Other (Specify)

83 Other (specify)

[Other__Specify]

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caught

84 What have you caught/hunted in the last 12 months? Please explain.

[caught]

end hunting

85 Section: end hunting

start selling food

86 Section: start selling food

Selling food

87 Selling food

hours8

88 How many hours a week do you spend selling food during the wet season?

[hours8]

Answer: _____

hours 8.8

89 How many hours a week do you spend selling food during the dry season?

[hours_8_8]

Answer: _____

sprcify

90 Do you sell food during a specific season, or a few times a year? Please explain.

[sprcify]

end selling food

91 Section: end selling food

start casual

92 Section: start casual

Casual Labour

93 Casual Labour (Enter 0 or "n/a" if the next questions are not applicable)

hoursi9

94 How many hours a week do you spend doing casual labour during the wet season?

[hoursi9]

Answer: _____

hours9.9

95 How many hours a week do you spend doing casual labour during the dry season?

[hours9_9]

Answer: _____

specify9

96 Do you work as a casual labourer during a specific season, or a few times a year? Please explain.

[specify9]

end casual

97 Section: end casual

start fishing

98 Section: start fishing

Fishing

99 Fishing (Enter 0 or "n/a" if the next questions are not applicable)

houra10

100 How many hours a week do you spend fishing during the wet season?

[houra10]

Answer: _____

hours10.10

101 How many hours a week do you spend fishing during the dry season?

[hours10_10]

Answer: _____

specify10

102 Do you fish during a specific season, or a few times a year? Please explain.

[specify10]

how much

103 How much (%) of your catch is for your own use? How much (%) for sale?

For own use?

[how_much.For_own_use]

For sale?

[how_much.For_sale]

time

104 Compared to five years ago, how long does it take to catch the same amount of fish? (e.g. 5 years ago it took me 3 hours and now to catch the same amount of fish it takes 6 hours). Please explain.

[time]

end fishing

105 Section: end fishing

start services

106 Section: start services

Services (e.g. repairing shoes, carpentry, etc.)

107 Services (e.g. repairing shoes, carpentry, etc.) (Enter 0 or "n/a" if the next questions are not applicable)

hours11

108 How many hours a week do you spend providing a service e.g. repairing shoes, carpentry, etc, during the wet season?

[hours11]

Answer: _____

hours11.11

109 How many hours a week do you spend providing a service e.g. repairing shoes, carpentry, etc, during the dry season?

[hours11_11]

Answer: _____

specify11

110 Do you do provide a service e.g. repairing shoes, carpentry, etc, during a specific season, or a few times a year? Please explain.

[specify11]

what service

111 What services do you offer? Please explain.

[what_service]

5years

112 Compared to five years ago do you have more work providing your service now?

[q5years]

₁ Yes

₂ No

end services

113 Section: end services

Project Manager:

Transaction ID: 1530

Print Date: Aug 27 2013 at 02:00:06 PM

Language: English - United States

Project Mode: Live

start professional

114 Section: start professional

Professional Services (teaching, medical, governin

115 Professional Services (teaching, medical, governing) (Enter 0 or "n/a" if the next questions are not applicable)

hours12

116 How many hours a week do you spend providing professional services e.g. teaching, medical, governing, etc, during the wet season?

[hours12]

Answer: _____

hours12.12

117 How many hours a week do you spend providing professional services e.g. teaching, medical, governing, etc, during the dry season?

[hours12_12]

Answer: _____

specify12

118 Do you provide professional services e.g. eaching, medical, governing, etc, during a specific season, or a few times a year? Please explain.

[specify12]

what services

119 What professional services do you offer? Please explain.

[what_services]

end professional

120 Section: end professional

start childcare

121 Section: start childcare

Childcare

122 Childcare

hours13

123 How many hours a week do you spend providing childcare during the wet season?

[hours13]

Answer: _____

hours13.13

124 How many hours a week do you spend providing childcare during the dry season?

[hours13_13]

Answer: _____

speciy13

125 Do you provide childcare during a specific season, or a few times a year? Please explain.

[speciy13]

end childcare

126 Section: end childcare

start traditioanl

127 Section: start traditioanl

Traditional healer/Midwifery

128 Traditional healer/Midwifery

hours14

129 How many hours a week do you work as a traditional healer or midwife?

[hours14]

Answer: _____

specigy14

130 Do you work as a traditional healer or midwife during a specific season, or a few times a year? Please explain.

[specigy14]

end traditional

131 Section: end traditional

Q10A

132 From all of the things that you said you do to for a living, please indicate the three most important things you do during the wet season. If you do less than 3 things, then just give me the one or two things that you do.

Reason 1

[Q10A.Reason_1]

Reason 2

[Q10A.Reason_2]

Reason 3

[Q10A.Reason_3]

Q10B

133 From all of the things that you said you do to for a living, please indicate the three most important things you do during the wet season. If you do less than 3 things, then just give me the one or two things that you do.

Reason 1

[Q10B.Reason_1]

Reason 2

[Q10B.Reason_2]

Reason 3

[Q10B.Reason_3]

Section B: IMPACT OF USAID PROJECTS ON LIVELIHOODS

134 Section C: IMPACT OF USAID PROJECTS ON LIVELIHOODS, TOURISM AND STATE OF THE ENVIRONMENT

Q11

135 Do you know that Gorongosa National Park was re-started (8 years ago)?

[Q11]

- _1 Yes
- _2 No
- _3 Not sure

Q11B

136 if yes, from whom did you hear?

- _1 Carr Foundation
[Q11B.Carr_Foundation]
- _2 Community leader
[Q11B.Community_leader]
- _3 Other community members
[Q11B.Other_community_memb]
- _4 Government
[Q11B.Government]
- _5 Other (specify
[Q11B.Other__specify]

Q11OTHER

137 Other (specify)

[Q11OTHER]

Q12

138 Did the re-start of Gorongosa NP make you change the way you farm?

[Q12]

- _1 Yes
- _2 No
- _3 Not sure

Q12B

139 If yes, what are the changes?.

[Q12B]

Q13

140 Did the re-start of Gorongosa NP make you change the place you cut trees?

[Q13]

- 1 Yes
- 2 No
- 3 Not sure

Q13B

141 if yes, what are the changes?

[Q13B]

Q14

142 Did the re-start of Gorongosa NP make you change the place you fish

[Q14]

- 1 Yes
- 2 No
- 3 Not sure

Q14B

143 If yes, what are the changes?

[Q14B]

Q15

144 Did the re-start of Gorongosa NP make you change the place you hunt?

[Q15]

- 1 Yes
- 2 No
- 3 Not sure

Q15B

145 If yes, what are the changes?

[Q15B]

Q16

146 Did the re-start of Gorongosa NP make you change the way you farm

[Q16]

- 1 Yes
- 2 No
- 3 Not sure

Q16B

147 if yes, what are the changes?

[Q16B]

q17

148 Did the re-start of Gorongosa NP make you change the way you cut tress?

[q17]

- 1 Yes
- 2 No
- 3 Not sure

Q17B

149 if yes, what are the changes?

[Q17B]

Q18

150 Did the re-start of Gorongosa NP make you change the way you fish?

[Q18]

- 1 Yes
- 2 No
- 3 Not sure

Q18B

151 if yes, what are the changes?

[Q18B]

Q19

152 Did the re-start of Gorongosa NP make you change the way you hunt?

[Q19]

- 1 Yes
- 2 No
- 3 Not sure

Q19B

153 what are the changes?

[Q19B]

Q20

154 Are there important things for your living that you stopped doing or started doing due to the re-start of Gorongosa NP?

[Q20]

- 1 Yes
- 2 No

explain your answer

155 If Yes, please indicate.

[explain_your_answer]

Q21

156 Do you see changes in your life in the past 8 years (since the re-start of Gorongosa NP?)

[Q21]

- 1 Yes
- 2 No

Q21B

157 if yes, what are the positive changes?

[Q21B]

Q21C

158 and what are the negative changes? (ex: human-animal conflicts, prohibition of access to natural resources, etc)

[Q21C]

Q22

159 How do you compare the number of wild animals in this region before and after the re-start of Gorongosa NP, 8 years ago?

[Q22]

- 1 Increased
- 2 Decreased
- 3 Did not change
- 4 Dont Know

Q22B

160 if it increased or decreased, is it good or bad?

[Q22B]

- 1 Good
- 2 Bad

Q22C

161 Why do you say this?

[Q22C]

Q23

162 How do you compare employment opportunities in this region before and after the re-start of Gorongosa NP, 8 years ago?

[Q23]

- 1 Increased
- 2 Decreased
- 3 Did not change
- 4 Dont Know

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Transaction ID: 1530

Print Date: Aug 27 2013 at 02:00:06 PM

Language: English - United States

Project Mode: Live

Q23B

163 Do you work in Gorongosa

[Q23B]

₁ Yes

₂ No

Q23C

164 if yes, what is your job there?

[Q23C]

Q24

165 Do you know anyone working in Gorongosa NP

[Q24]

₁ Yes

₂ No

₃ Not sure

Q24B

166 If yes, What is their job there?

[Q24B]

Q24C

167 How do you compare the sources of livelihood and income before and after the re-start of Gorongosa NP, 8 years ago?

[Q24C]

₁ Increased

₂ Decreased

₃ Did not change

₄ Dont Know

Q24D

168 Please indicate main changes

[Q24D]

Q25

169 Who is responsible for the management of the Gorongosa NP?

[Q25]

Q26

170 How is the access to Gorongosa by local people for visits?

[Q26]

₁ Impossible

₂ Difficult

₃ Easy

Q26B

171 if impossible or difficult, who has easy access?

[Q26B]

Q27

172 Who owns the natural resources (animals, trees, water, etc.) located inside Gorongosa NP?

[Q27]

Q28

173 Are you aware of (or heard of) the Carr Foundation?

[Q28]

₁ Yes

₂ No

₃ Not sure

Q28B

174 Have you ever worked with the Carr Foundation

[Q28B]

₁ Yes

₂ No

Q28C

175 What do you know about them?

[Q28C]

Q29

176 Are local people involved in nature conservation?

[Q29]

- 1 Yes
- 2 No
- 3 Dont know
- 4 Doesnt Exist

Q29B

177 if yes, who from the community is involved? (community leader, associations, etc.)

[Q29B]

Q29C

178 what is their roles?

[Q29C]

Q29D

179 who identified/selected them?

- 1 Carr Foundation
[Q29D.Carr_Foundation]
- 2 Carr Foundation after community consultations
[Q29D.Carr_Foundation_afte]
- 3 Community leader
[Q29D.Community_leader]
- 4 Government
[Q29D.Government]
- 5 Other (specify)
[Q29D.Other__specify]

Q29OTHER

180 Other (specify)

[Q29OTHER]

q30

181 [If this exists here] Are you familiar with the community ranger programme?

[q30]

- 1 Yes
- 2 No
- 3 Dont know
- 4 Doesnt Exist

Q30B

182 If yes, are you a ranger?

[Q30B]

- 1 Yes
- 2 No

Q30C

183 Do you know any community member who is a ranger?

[Q30C]

- 1 Yes
- 2 No
- 3 Dont know
- 4 Doesnt Exist

Q31

184 Do you ever see tourists?

[Q31]

- 1 Yes
- 2 No
- 3 Not sure

Q31B

185 If yes, how often do you see tourists?:

[Q31B]

- _1 Every day
- _2 Every week
- _3 Every month

everyday

186 If yes, how many tourists per day, more or less?

[everyday]

everyweek

187 If yes, how many tourists per week, more or less ?

[everyweek]

every month

188 If yes, how many tourists per month, more or less?

[every_month]

Q32

189 Where do you see tourists?

[Q32]

Q33

190 How do you compare the number of tourists in this region before and after the re-start of Gorongosa NP, 8 year ago?

[Q33]

- _1 Increased
- _2 Decreased
- _3 Did not change
- _4 Dont Know

Q34

191 How do you compare the number of hotels in this region before and after the re-start of Gorongosa NP, 8 year ago??

[Q34]

- 1 Increased
- 2 Decreased
- 3 Did not change
- 4 Dont Know

Q35

192 Are you involved in nature conservation?

[Q35]

- 1 Yes
- 2 No

Q36

193 Are local people involved in tourism development?

[Q36]

- 1 Yes
- 2 No
- 3 Not sure

Q36B

194 If yes, who from the community is involved? (community leader, associations, etc.)

[Q36B]

Q36C

195 what are their roles?

[Q36C]

Q36D

196 who identified/selected them?:

- 1 Carr Foundation
[Q36D.Carr_Foundation]
- 2 Carr Foundation after community consultations
[Q36D.Carr_Foundation_afte]
- 3 Community leader
[Q36D.Community_leader]
- 4 Government
[Q36D.Government]
- 5 Other (specify)
[Q36D.Other__specify]

Q36DOTHER

197 Other (specify)

[Q36DOTHER]

Q37

198 Are you involved in tourism development?

[Q37]

- 1 Yes
- 2 No

Q38

199 How do you think tourism could be better in and around Gorongosa?

[Q38]

Q39

200 Is the municipality of Gorongosa involved in tourism development?

[Q39]

- 1 Yes
- 2 No

Q39B

201 if yes, what are the activities of the municipality?

[Q39B]

Q40

202 Is the municipality involved in nature conservation?

[Q40]

1 Yes

2 No

Q40B

203 if yes, what are the activities of the municipality?

[Q40B]

Comments

204 Do you have any comments regarding the survey?

[Comments]

Interviewr name

205 Interviewer name

[Interviewr_name]

End

206 Thank You very much for your contribution

5. HOUSEHOLD QUESTIONNAIRE – LAKE NIASSA 1 (26 AUGUST)

Khulisa Lake Niassa Reserve

Language

1 Choose language

[Language1]

- 1 English
- 2 Portuguese

msg

2 Biodiversity Conservation and Tourism Evaluation

Khulisa Project (Lake Niassa Reserve)

intro

3 What is the name of the community?

[intro]

location

4 Please enter the exact location of this interview

[location]

GPS

5 Please capture GPS Co- ordinates

Answer:

intro1

6 (This is a study to evaluate the contribution of Gorongosa Restoration Project or Lake Niassa Reserve to the conservation of nature, development of tourism and improvement of livelihoods of local communities)

Explain that all answers are confidential and that no one will know your name. Take photo – if the person wishes – it could be of their house, the field, their back, etc. Note location on GPS for mapping.

Remember 50% of respondents have to be between 18 and 35 and 50% female interviewed by the females. On average 5 interviews should be conducted per hour, resulting in at least 30 interviews per 8 hour day per fieldworker. We should have approximately 720 total responses.

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Transaction ID: 0

Print Date: Sep 25 2013 at 11:16:01 AM

Language: English - United States

Project Mode: Draft

Section 1: HOUSEHOLD CHARACTERISTICS

7 Section 1: HOUSEHOLD CHARACTERISTICS

Q1

8 Can we speak in Portuguese?

[Q1]

- 1 Yes
- 2 No

Q1.1

9 If no, which language do you prefer?

[Note the language the interview was conducted in from this point.]

[Q1_1]

name

10 NAME OF RESPONDENT

[name]

AGE

11 AGE OF RESPONDENT

[AGE]

- 1 UNDER 18
- 2 18 - 24
- 3 25 - 34
- 4 35 - 49
- 5 50+

Q2

12 Sex

[Q2]

- 1 Male
- 2 Female

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Q3

13 What year were you born? (Approximate)

(Fieldworker, help to estimate if respondent is struggling with this questions -- check to make sure it is before 1995, anyone born later than 1995 is not old enough to participate in the survey)

[Q3]

Answer:

Q4

14 Were you born in this area?

[Q4]

- 1 Yes
- 2 No
- 3 Not sure

Q5

15 Do you consider this area your home

[Q5]

- 1 Yes
- 2 No
- 3 Not sure

q6

16 If yes, were you born around here?

[q6]

- 1 Yes
- 2 No

q7

17 If no or not sure, where is your home?

(Note another village in the same region, another province, another country (e.g. Malawi)

[q7]

q8

18 Why did you come here?

[q8]

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Project Mode: Draft

How long since you came here

19 How long since you came here?

answer in years (1 for 1 year or less, 2 for years etc.)

[How_long_since_you_c]

Answer:

q9

20 What is your marital status?

[q9]

- 1 Married/Living together like married partners (customary marriages)
- 2 Single/never married
- 3 Polygamous marriage
- 4 Widowed/Separated or Divorced

q10

21 Do you have children?

(if the individual indicates they do not know, mark no)

[q10]

- 1 Yes
- 2 No

Q105

22 What is the highest level of school you completed?

[Q105]

- 1 Alphabetization
- 2 Primary (EP1)
- 3 Primary (EP2)
- 4 Secondary Education (1Ciclo)
- 5 Secondary Education (2Ciclo)
- 6 Elementary Technician
- 7 Basic Technician
- 8 Middle Technician
- 9 Vocational Training
- 10 Advanced
- 97 <No label for this item in current or default language>

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Section B: LIVELIHOOD STRATEGIES

23 Section B: LIVELIHOOD STRATEGIES

Q9.1

24 What do you do for a living?

- 1 **Studying**
[Q9_1.Studying]
- 2 **Job (earning regular money)**
[Q9_1.Job__earning_regular]
- 3 **Farming**
[Q9_1.Farming]
- 4 **Herding or Raising Livestock**
[Q9_1.Herding_or_Raising_L]
- 5 **Harvesting Trees**
[Q9_1.Harvesting_Trees]
- 6 **Harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush**
[Q9_1.Harvesting_fruit__se]
- 7 **Hunting**
[Q9_1.Hunting]
- 8 **Selling food**
[Q9_1.Selling_food]
- 9 **Casual Labour**
[Q9_1.Casual_Labour]
- 10 **Fishing**
[Q9_1.Fishing]
- 11 **Services (e.g. repairing shoes, carpentry, builder, etc.)**
[Q9_1.Services__e_g__repa]
- 12 **Professional Services (teaching, medical, governing)**
[Q9_1.Professional_Service]
- 13 **Childcare**
[Q9_1.Childcare]
- 14 **Traditional healer/Midwifery**
[Q9_1.Traditional_healer_M]
- 15 **Other**
[Q9_1.Other1]

start studying

25 Section: start studying

Project Manager:
Transaction ID: 0
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Language: English - United States
Project Mode: Draft

Studying

26 Studying (Enter 0 or "n/a" if the next questions are not applicable)

hour1

27 How many hours a week do you spend studying during the wet season?

[hour1]

Answer:

hour1.1

28 How many hours a week do you spend studying during the dry season?

[hour1_1]

Answer:

specify1

29 When do you most usually study? Is it during a specific season, or a few times a year? Please explain.

[specify1]

1 Yes

2 No

Where

30 Where do you study? Please explain.

[Where]

opportunities

31 Are there more opportunities to study now, compared to five years ago? Please explain.

[opportunities]

end Studying

32 **Section: end Studying**

start job

33 **Section: start job**

Project Manager:

Language: English - United States

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Project Mode: Draft

Print Date: Sep 25 2013 at 11:16:01 AM

Job

34 Job (earning regular money) (Enter 0 or "n/a" if the next questions are not applicable)

Hours2

35 How many hours a week do you spend working during the wet season?

[Hours2]

Answer:

Hours2.2

36 How many hours a week do you spend working during the dry season?

[Hours2_2]

Answer:

specify2

37 Do you work during a specific season, or a few times a year? Please explain.

[specify2]

- 1 Yes
- 2 No

relation

38 Is your job related to tourism or conservation?

[relation]

- 1 Yes
- 2 No

WHere2

39 Where do you work and what is the nature of your job? Please explain

Where do you work?

[WHere2.Place_of_work]

What is the nature of your job? [What do you do?]

[WHere2.Occupation]

end job

40 **Section: end job**

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start farming

41 Section: start farming

farming

42 Farming (Enter 0 or "n/a" if the next questions are not applicable)

hours3

43 How many hours a week do you spend farming during the wet season?

[hours3]

Answer:

hour3.3

44 How many hours a week do you spend farming during the dry season?

[hour3_3]

Answer:

specify3

45 Do you farm during a specific season, or a few times a year? Please explain.

[specify3]

- 1 Yes
- 2 No

percentage

46 What percentage of your crop do you sell?

[percentage]

Answer:

influence

47 Has LNR or GNP changed the way you farm? Please explain.

[influence]

end farming

48 Section: end farming

Project Manager:

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Language: English - United States

Project Mode: Draft

start herding

49 Section: start herding

Herding or Raising Livestock

50 Herding or Raising Livestock (Enter 0 or "n/a" if the next questions are not applicable)

hours4

51 How many hours a week do you spend herding or raising livestock during the wet season?

[hours4]

Answer:

Hour4.4

52 How many hours a week do you spend herding or raising livestock during the dry season?

[Hour4_4]

Answer:

specify4

53 Do you herd or raise livestock during a specific season, or a few times a year? Please explain.

[specify4]

percentage2

54 What percentage of your livestock do you sell?

[percentage2]

Answer:

grazing

55 Do you use park land to graze your livestock? Do you use park land for anything relating to your livestock? Please explain.

[grazing]

end herding

56 Section: end herding

Project Manager:

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Project Mode: Draft

start harvesting

57 Section: start harvesting

Harvesting Trees

58 Harvesting Trees (Enter 0 or "n/a" if the next questions are not applicable)

hours5

59 How many hours a week do you spend harvesting during the wet season?

[hours5]

Answer:

hours5.5

60 How many hours a week do you spend harvesting during the dry season?

[hours5_5]

Answer:

specify5

61 Do you harvest during a specific season, or a few times a year? Please explain.

[specify5]

- 1 Yes
- 2 No

where5

62 Where are your trees located? If in the park, what is the approval process? Please explain.

[where5]

timber

63 What do you do with your timber?

- 1 make firewood
[timber.firewood]
- 2 make charcoal
[timber.charcoal]
- 3 boat construction
[timber.boat_construction]
- 4 make poles to build houses
[timber.poles_to_build_houses]
- 5 Other
[timber.Other1]

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timberother

64 Other (Specify)
[timberother]

end hsrvesting

65 Section: end hsrvesting

start fruit

66 Section: start fruit

Harvesting fruit, seeds, nuts, roots, leaves, hone

67 Harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush (Enter 0 or "n/a" if the next questions are not applicable)

hjours 6

68 How many hours a week do you spend harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush during the wet season?

[hjours_6]

Answer:

hours6.6

69 How many hours a week do you spend harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush during the dry season?

[hours6_6]

Answer:

specify6

70 Do you harvest fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush during a specific season, or a few times a year? Please explain.

[specify6]

1 Yes

2 No

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where6

71 Where are these plants located? If in the park, what is the approval process? Please explain.
[where6]

product

72 What do you do with your harvest?

- 1 Sell raw
[product.Sell_raw]
- 2 Use for ourselves
[product.Use_for_ourselves]
- 3 Use as part of production? (e.g. make jam)
[product.Use_as_part_of_production__e_]
- 4 Other
[product.Other1]

productother

73 Other (Specify)
[productother]

end fruit

74 Section: end fruit

start hunting

75 Section: start hunting

Hunting

76 Hunting (Enter 0 or "n/a" if the next questions are not applicable)

hour7

77 How many hours a week do you spend hunting during the wet season?
[hour7]

Answer:

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hours7.7

78 How many hours a week do you spend hunting during the dry season?

[hours7_7]

Answer:

specify7

79 Do you hunt during a specific season, or a few times a year? Please explain.

[specify7]

- 1 Yes
- 2 No

hunt

80 Do you hunt in and around the GNP/LNR?

[hunt]

- 1 Yes
- 2 No

what do

81 What do you hunt? Please explain.

[what_do]

why hunt

82 Why do you hunt?

- 1 For meat/skin/trophy
[why_hunt.For_meat_skin_trophy]
- 2 For own use
[why_hunt.For_own_use]
- 3 To sell
[why_hunt.To_sell]
- 4 Other
[why_hunt.Other1]

Other (Specify)

83 Other (specify)

[Other__Specify]

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caught

84 What have you caught/hunted in the last 12 months? Please explain.
[caught]

end hunting

85 Section: end hunting

start selling food

86 Section: start selling food

Selling food

87 Selling food

hours8

88 How many hours a week do you spend selling food during the wet season?
[hours8]

Answer:

hours 8.8

89 How many hours a week do you spend selling food during the dry season?
[hours_8_8]

Answer:

sprcify

90 Do you sell food during a specific season, or a few times a year? Please explain.
[sprcify]

- 1 Yes
- 2 No

end selling food

91 Section: end selling food

Project Manager:
Transaction ID: 0
Print Date: Sep 25 2013 at 11:16:01 AM

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Project Mode: Draft

start casual

92 Section: start casual

Casual Labour

93 Casual Labour (Enter 0 or "n/a" if the next questions are not applicable)

hoursi9

94 How many hours a week do you spend doing casual labour during the wet season?

[hoursi9]

Answer:

hours9.9

95 How many hours a week do you spend doing casual labour during the dry season?

[hours9_9]

Answer:

specify9

96 Do you work as a casual labourer during a specific season, or a few times a year? Please explain.

[specify9]

- 1 Yes
- 2 No

end casual

97 Section: end casual

start fishing

98 Section: start fishing

Fishing

99 Fishing (Enter 0 or "n/a" if the next questions are not applicable)

houra10

100 How many hours a week do you spend fishing during the wet season?

[houra10]

Answer:

hours10.10

101 How many hours a week do you spend fishing during the dry season?

[hours10_10]

Answer:

specify10

102 Do you fish during a specific season, or a few times a year? Please explain.

[specify10]

1 Yes

2 No

how much

103 How much (%) of your catch is for your own use? How much (%) for sale?

For own use?

[how_much.For_own_use]

For sale?

[how_much.For_sale]

time

104 Compared to five years ago, how long does it take to catch the same amount of fish? (e.g. 5 years ago it took me 3 hours and now to catch the same amount of fish it takes 6 hours). Please explain.

before

[time1.before]

now

[time1.now]

end fishing

105 Section: end fishing

start services

106 Section: start services

Project Manager:

Transaction ID: 0

Print Date: Sep 25 2013 at 11:16:01 AM

Language: English - United States

Project Mode: Draft

Services (e.g. repairing shoes, carpentry, etc.)

107 Services (e.g. repairing shoes, carpentry, etc.) (Enter 0 or "n/a" if the next questions are not applicable)

hours11

108 How many hours a week do you spend providing a service e.g. repairing shoes, carpentry, etc, during the wet season?

[hours11]

Answer:

hours11.11

109 How many hours a week do you spend providing a service e.g. repairing shoes, carpentry, etc, during the dry season?

[hours11_11]

Answer:

specify11

110 Do you do provide a service e.g. repairing shoes, carpentry, etc, during a specific season, or a few times a year? Please explain.

[specify11]

- 1 Yes
- 2 No

what service

111 What services do you offer? Please explain.

[what_service]

5years

112 Compared to five years ago do you have more work providing your service now?

[q5years]

- 1 Yes
- 2 No

end services

113 Section: end services

Project Manager:

Transaction ID: 0

Print Date: Sep 25 2013 at 11:16:01 AM

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Project Mode: Draft

start professional

114 Section: start professional

Professional Services (teaching, medical, governin

115 Professional Services (teaching, medical, governing) (Enter 0 or "n/a" if the next questions are not applicable)

hours12

116 How many hours a week do you spend providing professional services e.g. teaching, medical, governing, etc, during the wet season?

[hours12]

Answer:

hours12.12

117 How many hours a week do you spend providing professional services e.g. teaching, medical, governing, etc, during the dry season?

[hours12_12]

Answer:

specify12

118 Do you provide professional services e.g. eaching, medical, governing, etc, during a specific season, or a few times a year? Please explain.

[specify12]

- 1 Yes
- 2 No

what services

119 What professional services do you offer? Please explain.

[what_services]

end professional

120 Section: end professional

Project Manager:
Transaction ID: 0
Print Date: Sep 25 2013 at 11:16:01 AM

Language: English - United States
Project Mode: Draft

start childcare

121 Section: start childcare

Childcare

122 Childcare

hours13

123 How many hours a week do you spend providing childcare during the wet season?

[hours13]

Answer:

hours13.13

124 How many hours a week do you spend providing childcare during the dry season?

[hours13_13]

Answer:

speciy13

125 Do you provide childcare during a specific season, or a few times a year? Please explain.

[speciy13]

- 1 Yes
- 2 No

end childcare

126 Section: end childcare

start traditioanl

127 Section: start traditioanl

Traditional healer/Midwifery

128 Traditional healer/Midwifery

Project Manager:

Transaction ID: 0

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Project Mode: Draft

hours14

129 How many hours a week do you work as a traditional healer or midwife?

[hours14]

Answer:

specify14

130 Do you work as a traditional healer or midwife during a specific season, or a few times a year? Please explain.

[specify14]

- 1 Yes
- 2 No

end traditional

131 Section: end traditional

Q10A

132 From all of the things that you said you do to for a living, please indicate the three most important things you do during the wet season. If you do less than 3 things, then just give me the one or two things that you do.

Reason 1

[Q10A.Reason_1]

Reason 2

[Q10A.Reason_2]

Reason 3

[Q10A.Reason_3]

Q10B

133 From all of the things that you said you do to for a living, please indicate the three most important things you do during the wet season. If you do less than 3 things, then just give me the one or two things that you do.

Reason 1

[Q10B.Reason_1]

Reason 2

[Q10B.Reason_2]

Reason 3

[Q10B.Reason_3]

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Section C

134 Section C: IMPACT OF USAID PROJECTS ON LIVELIHOODS, TOURISM AND STATE OF THE ENVIRONMENT

q11

135 Did you ever hear about Lake Niassa Reserve (LNR)?

[q11]

- 1 Yes
- 2 No

Q11.2

136 if yes, from who did you hear?:

[Q11_2]

- 1 WWF
- 2 Community leader
- 3 Other community members
- 4 Government
- 5 Fisheries Institute
- 6 Radio
- 7 Other (specify)

q11.2other

137 Other (specify)

[q11_2other]

Q12

138 Do you live within reserve boundaries

[Q12]

- 1 Inside
- 2 Outside

start Pesca

139 Section: start Pesca

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Q13

140 Did the creation of the Reserve make you change the way you fish?

[Q13]

- 1 Yes
- 2 No

q13.1

141 if yes, what are the changes?

[q13_1]

Q14

142 Did the creation of the Reserve make you change the place where you fish?

[Q14]

- 1 Yes
- 2 No

q14.1

143 if yes, what are the changes?

[q14_1]

q15

144 Did the creation of the Reserve make you change the time of the year you fish?

[q15]

- 1 Yes
- 2 No

q15.1

145 what are the changes?

[q15_1]

end Pesca

146 Section: end Pesca

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start agricultura

147 Section: start agricultura

Q.16

148 The establishment of the Reserve made ??you change the way you do farm?

[Q_16]

- 1 Yes
- 2 No

Q.16a

149 if so, what were the major changes?

[Q_16a]

Q.17

150

[Q_17]

- 1 Yes
- 2 No

Q.17a

151

[Q_17a]

end agricultura

152 Section: end agricultura

start corta avores

153 Section: start corta avores

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q.18

- 154** Did the creation of the Reserve make you change the way you cut trees?
[q_18]
- 1 Yes
 - 2 No

q18.1

- 155** if yes, what are the changes?
[q18_1]

Q.19

- 156** The establishment of the Reserve did you change where you cut trees?
[Q_19]
- 1 Yes
 - 2 No

Q.19.1

- 157**
[Q_19_1]

end cortas avores

- 158 Section: end cortas avores**

start Caca

- 159 Section: start Caca**

Q.20

- 160** O estabelecimento da Reserva fez-te mudar a forma como pescas?
[Q_20]
- 1 Sim
 - 2 Não
 - 3 Sim Certeza

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Q.20.1

161 se sim, quais foram as maiores mudanças?

[Q_20_1]

Q.21

162 O estabelecimento da Reserva fez-te mudar o lugar onde pescas?

[Q_21]

- 1 Sim
- 2 Não
- 3 Sim Certeza

Q.21a

163 se sim, quais foram as maiores mudanças?

[Q_21a]

Q.22

164 O estabelecimento da Reserva fez-te mudar o o periodo do ano em que pescas?

[Q_22]

- 1 Sim
- 2 Não
- 3 Sim Certeza

Q.22a

165 se sim, quais foram as maiores mudanças?

[Q_22a]

End Caca

166 Section: End Caca

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Q.23

167 How do compare the number of fisherman in this area before and after the creation of the reserve?
[Q_23]

- 1 Did not change
- 2 Increased
- 3 decreased
- 4 dont know

Q.24

168 How do you compare the amount of fish in the lake before and after the creation of the Reserve
[Q_24]

- 1 Increased
- 2 Decreased
- 3 Dont know

Q.26

169 How do you compare the types (names) of fish catch in the lake before and after the creation of the Reserve?
[Q_26]

- 1 Increased
- 2 decreased
- 3 dont know

Q.27

170 Is there any type of fish that you see in the past two years that you had not seen before?
[Q_27]

- 1 Yes
- 2 No

Q.27.1

171 specify
[Q_27_1]

Q.28

172 Is there any type of fish that you have not seen in the past two years? No
[Q_28]

- 1 Yes
- 2 No

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Q.28.1

173 Specify
[Q_28_1]

Q.29

174 Has the amount of different types of fish caught changed during the past two years?
[Q_29]

- 1 Yes
- 2 No

Q_29.1

175 If yes, please indicate the types that have increased
[Q_29_1]

Q.29.2

176 If yes, indicate the types that have decreased
[Q_29_2]

q.30

177 Two years ago, were you working?
[q_30]

- 1 Yes
- 2 No

q.30.1

178 if yes, what was your main job
[q_30_1]

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q.30.2

179 and now, what is your main job?
[q_30_2]

q.31

180 Are there important things for your living that you (and other people) stopped doing or started doing in the past two years?
[q_31]

- 1 Yes
- 2 No

q_31.1

181 if yes, please indicate
[q_31_1]

Q.31.2

182 Are there important things you got to do to live the last 5 years?
[Q_31_2]

- 1 Yes
- 2 No

Q.31_3

183 If yes, please specify
[Q_31_3]

Q.32

184 How do you compare employment opportunities in this region before and after the creation of the Reserve?
[Q_32]

- 1 Did not change
- 2 increased
- 3 decreased
- 4 Dont Know

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q.32.1

185 Do you work in the Reserve

[Q_32_1]

- 1 Yes
- 2 No

Q.32.2

186 if yes, what is your job there?

[Q_32_2]

Q.33

187 Do you know anyone working in the Reserve?

[Q_33]

- 1 Yes
- 2 No
- 3 Not sure

Q.33.1

188 if yes, what is their job there?

[Q_33_1]

q.34

189 How do you compare the sources of livelihood and income before and after the creation of the Reserve?

[q_34]

- 1 Did not change
- 2 improved
- 3 worsened

Q.34.1

190 Please indicate main changes

[Q_34_1]

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q.35

191 Who is responsible for the management of the Lake Niassa
[q_35]

Q.36

192 Are you aware of the World Wildlife Fund also called WWF?
[Q_36]

- 1 Yes
- 2 No

Q36.1

193 If yes, what do you know about them?
[Q_36_1]

Q.37

194 Are you involved in nature conservation?
[Q_37]

- 1 Yes
- 2 No

Q.38

195 Are local people involved in nature conservation?
[Q_38]

- 1 Yes
- 2 No
- 3 Dont know

Q.38.1

196 if yes, who from the community is involved? (community leader, associations, etc.)
[Q_38_1]

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Q.38.2

197 what is their roles?
[Q_38_2]

Q.38.3

198 who identified/selected them?
[Q_38_3]

- 1 WWF
- 2 Community leader
- 3 Government
- 4 Fisheries Institute
- 5 Other (specify)

Q.32.3other

199 Other (specify)
[Q_32_3other]

Q.39

200 [Check with other informants whether this exists here] Are you familiar with the community ranger programme?
[Q_39]

- 1 Yes
- 2 No

q.39.1

201 Are you a ranger?
[q_39_1]

- 1 Yes
- 2 No

q.39.2

202 Do you know any community member who is a ranger?
[q_39_2]

- 1 Yes
- 2 No

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Q.40

203 Do you ever see tourists?
[Q_40]

- 1 Yes
- 2 No
- 3 Not sure

msg8

204 If yes, how often do you see tourists?:

every day

205 Every Day?
[every_day]

- 1 Yes
- 2 No

every week

206 Every week?
[every_week]

- 1 Yes
- 2 No

everymonth

207 Every month?
[everymonth]

- 1 Yes
- 2 No

if yes day

208 if yes, how many tourists per day, more or less
[if_yes_day]

Answer:

if yes week

209 if yes, how many tourists per week, more or less
[if_yes_week]

Answer:

Project Manager:
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if yes month

210 if yes, how many tourists per month, more or less

[if_yes_month]

Answer:

Q.41

211 How do you compare the number of tourists in this region before and after the re-start of Gorongosa NP, 8 year ago?

[Q_41]

- 1 Did not change
- 2 increased
- 3 decreased
- 4 don't know

q.42

212 How do you compare the number of hotels in this region before and after the re-start of Gorongosa NP, 8 year ago?

[q_42]

- 1 Did not change
- 2 increased
- 3 decreased
- 4 don't know

Q.43

213 Are local people involved in tourism development

[Q_43]

- 1 Yes
- 2 No
- 3 Dont know

Q.43.1

214 If yes, who from the community is involved? (community leader, associations, etc.)

[Q_43_1]

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Q.43.2

215 what are their roles?

[Q_43_2]

Q.43.3

216 who identified/selected them?:

[Q_43_3]

- 1 WWF
- 2 WWF after community consultation
- 3 Community leader
- 4 Government
- 5 Fisheries Research Institute
- 6 Other entity (specify)

q.43.3other

217 Other (specify)

[q_43_3other]

Q.44

218 Are you involved in tourism development?

[Q_44]

- 1 Yes
- 2 No

Q.45

219 Is there any community organization(s) for the use of natural resources (trees, bush meat, fish)?

[Q_45]

- 1 Yes
- 2 No

Q.45.1

220 if yes, what is the name of the organization(s)? [please indicate: interest groups, comité de gestão, etc]

[Q_45_1]

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Q.46

221 Is the municipality of Metangula involved in tourism development?

[Q_46]

- 1 Yes
- 2 No

Q.46.1

222 if yes, what are the activities of the municipality?

[Q_40_1]

Q47

223 Is the municipality involved in nature conservation?

[Q47]

- 1 Yes
- 2 No

q47.1

224 if yes, what are the activities of the municipality?

[q47_1]

Nme of Interviewer

225 Name of Interviewer

[Nme_of_Interviewer]

Comment

226 Do you have any comments regarding this survey?

[Comment1]

End

227 Thank you very much for your contribution.

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6. HOUSEHOLD QUESTIONNAIRE – LAKE NIASSA 2 (27 – 29 AUGUST)

Khulisa LNR

Language

1 Choose language

[Language1]

₁ English

₂ Portuguese

msg

2 Biodiversity Conservation and Tourism Evaluation

Khulisa Project (Lake Niassa Reserve)

intro

3 What is the name of the community?

[intro]

location

4 Please enter the exact location of this interview

[location]

GPS

5 Please capture GPS Co- ordinates

Answer: _____

intro1

6 (This is a study to evaluate the contribution of Gorongosa Restoration Project or Lake Niassa Reserve to the conservation of nature, development of tourism and improvement of livelihoods of local communities)

Explain that all answers are confidential and that no one will know your name. Take photo – if the person wishes – it could be of their house, the field, their back, etc. Note location on GPS for mapping.

Remember 50% of respondents have to be between 18 and 35 and 50% female interviewed by the females. On average 5 interviews should be conducted per hour, resulting in at least 30 interviews per 8 hour day per fieldworker. We should have approximately 720 total responses.

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Transaction ID: 721

Print Date: Sep 24 2013 at 07:38:47 PM

Language: English - United States

Project Mode: Live

Section 1: HOUSEHOLD CHARACTERISTICS

7 Section 1: HOUSEHOLD CHARACTERISTICS

Q1

8 Can we speak in Portuguese?

[Q1]

₁ Yes

₂ No

Q1.1

9 If no, which language do you prefer?

[Note the language the interview was conducted in from this point.]

[Q1_1]

name

10 NAME OF RESPONDENT

[name]

AGE

11 AGE OF RESPONDENT

[AGE]

₁ UNDER 18

₂ 18 - 24

₃ 25 - 34

₄ 35 - 49

₅ 50+

Q2

12 Sex

[Q2]

₁ Male

₂ Female

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Q3

13 What year were you born? (Approximate)

(Fieldworker, help to estimate if respondent is struggling with this questions -- check to make sure it is before 1995, anyone born later than 1995 is not old enough to participate in the survey)

[Q3]

Answer: _____

Q4

14 Were you born in this area?

[Q4]

- ₁ Yes
- ₂ No
- ₃ Not sure

Q5

15 Do you consider this area your home

[Q5]

- ₁ Yes
- ₂ No
- ₃ Not sure

q6

16 If yes, were you born around here?

[q6]

- ₁ Yes
- ₂ No

q7

17 If no or not sure, where is your home?

(Note another village in the same region, another province, another country (e.g. Malawi))

[q7]

q8

18 Why did you come here?

[q8]

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How long since you came here

19 How long since you came here?

answer in years (1 for 1 year or less, 2 for years etc.)

[How_long_since_you_c]

Answer: _____

q9

20 What is your marital status?

[q9]

- _1 Married/Living together like married partners (customary marriages)
- _2 Single/never married
- _3 Polygamous marriage
- _4 Widowed/Separated or Divorced

q10

21 Do you have children?

(if the individual indicates they do not know, mark no)

[q10]

- _1 Yes
- _2 No

Q105

22 What is the highest level of school you completed?

[Q105]

- _1 Alphabetization
- _2 Primary (EP1)
- _3 Primary (EP2)
- _4 Secondary Education (1Ciclo)
- _5 Secondary Education (2Ciclo)
- _6 Elementary Technician
- _7 Basic Technician
- _8 Middle Technician
- _9 Vocational Training
- _10 Advanced
- _97 <No label for this item in current or default language>

Section B: LIVELIHOOD STRATEGIES

23 Section B: LIVELIHOOD STRATEGIES

Q9.1

24 What do you do for a living?

- 1 Studying
[Q9_1.Studying]
- 2 Job (earning regular money)
[Q9_1.Job__earning_regular]
- 3 Farming
[Q9_1.Farming]
- 4 Herding or Raising Livestock
[Q9_1.Herding_or_Raising_L]
- 5 Harvesting Trees
[Q9_1.Harvesting_Trees]
- 6 Harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush
[Q9_1.Harvesting_fruit__se]
- 7 Hunting
[Q9_1.Hunting]
- 8 Selling food
[Q9_1.Selling_food]
- 9 Casual Labour
[Q9_1.Casual_Labour]
- 10 Fishing
[Q9_1.Fishing]
- 11 Services (e.g. repairing shoes, carpentry, builder, etc.)
[Q9_1.Services__e_g_repai]
- 12 Professional Services (teaching, medical, governing)
[Q9_1.Professional_Service]
- 13 Childcare
[Q9_1.Childcare]
- 14 Traditional healer/Midwifery
[Q9_1.Traditional_healer_M]
- 15 Other
[Q9_1.Other1]

start studying

25 Section: start studying

Studying

26 Studying (Enter 0 or "n/a" if the next questions are not applicable)

hour1

27 How many hours a week do you spend studying during the wet season?

[hour1]

Answer: _____

hour1.1

28 How many hours a week do you spend studying during the dry season?

[hour1_1]

Answer: _____

specify1

29 When do you most usually study? Is it during a specific season, or a few times a year? Please explain.

[specify1]

Where

30 Where do you study? Please explain.

[Where]

opportunities

31 Are there more opportunities to study now, compared to five years ago? Please explain.

[opportunities]

end Studying

32 Section: end Studying

start job

33 Section: start job

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Job

34 Job (earning regular money) (Enter 0 or "n/a" if the next questions are not applicable)

Hours2

35 How many hours a week do you spend working during the wet season?

[Hours2]

Answer: _____

Hours2.2

36 How many hours a week do you spend working during the dry season?

[Hours2_2]

Answer: _____

specify2

37 Do you work during a specific season, or a few times a year? Please explain.

[specify2]

relation

38 Is your job related to tourism or conservation?

[relation]

₁ Yes

₂ No

WHere2

39 Where do you work and what is the nature of your job? Please explain

Where do you work?

[WHere2.Place_of_work]

What is the nature of your job? [What do you do?]

[WHere2.Occupation]

end job

40 Section: end job

start farming

41 Section: start farming

farming

42 Farming (Enter 0 or "n/a" if the next questions are not applicable)

hours3

43 How many hours a week do you spend farming during the wet season?

[hours3]

Answer: _____

hour3.3

44 How many hours a week do you spend farming during the dry season?

[hour3_3]

Answer: _____

specify3

45 Do you farm during a specific season, or a few times a year? Please explain.

[specify3]

percentage

46 What percentage of your crop do you sell?

[percentage]

Answer: _____

influence

47 Has LNR or GNP changed the way you farm? Please explain.

[influence]

end farming

48 Section: end farming

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start herding

49 Section: start herding

Herding or Raising Livestock

50 Herding or Raising Livestock (Enter 0 or "n/a" if the next questions are not applicable)

hours4

51 How many hours a week do you spend herding or raising livestock during the wet season?

[hours4]

Answer: _____

Hour4.4

52 How many hours a week do you spend herding or raising livestock during the dry season?

[Hour4_4]

Answer: _____

specify4

53 Do you herd or raise livestock during a specific season, or a few times a year? Please explain.

[specify4]

percentage2

54 What percentage of your livestock do you sell?

[percentage2]

Answer: _____

grazing

55 Do you use park land to graze your livestock? Do you use park land for anything relating to your livestock? Please explain.

[grazing]

end herding

56 Section: end herding

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start harvesting

57 **Section: start harvesting**

Harvesting Trees

58 Harvesting Trees (Enter 0 or "n/a" if the next questions are not applicable)

hours5

59 How many hours a week do you spend harvesting during the wet season?

[hours5]

Answer: _____

hours5.5

60 How many hours a week do you spend harvesting during the dry season?

[hours5_5]

Answer: _____

specify5

61 Do you harvest during a specific season, or a few times a year? Please explain.

[specify5]

where5

62 Where are your trees located? If in the park, what is the approval process? Please explain.

[where5]

timber

63 What do you do with your timber?

1 make firewood

[timber.firewood]

5 Other

[timber.Other1]

2 make charcoal

[timber.charcoal]

3 boat construction

[timber.boat_construction]

4 make poles to build houses

[timber.poles_to_build_houses]

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timberother

64 Other (Specify)

[timberother]

end hsrvesting

65 Section: end hsrvesting

start fruit

66 Section: start fruit

Harvesting fruit, seeds, nuts, roots, leaves, hone

67 Harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush (Enter 0 or "n/a" if the next questions are not applicable)

hjours 6

68 How many hours a week do you spend harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush during the wet season?

[hjours_6]

Answer: _____

hours6.6

69 How many hours a week do you spend harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush during the dry season?

[hours6_6]

Answer: _____

specify6

70 Do you harvest fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush during a specific season, or a few times a year? Please explain.

[specify6]

where6

71 Where are these plants located? If in the park, what is the approval process? Please explain.

[where6]

product

72 What do you do with your harvest?

1 Sell raw

[product.Sell_raw]

2 Use for ourselves

[product.Use_for_ourselves]

3 Use as part of production? (e.g. make jam)

[product.Use_as_part_of_production__e_]

4 Other _____

[product.Other1]

productother

73 Other (Specify)

[productother]

end fruit

74 Section: end fruit

start hunting

75 Section: start hunting

Hunting

76 Hunting (Enter 0 or "n/a" if the next questions are not applicable)

hour7

77 How many hours a week do you spend hunting during the wet season?

[hour7]

Answer: _____

hours7.7

78 How many hours a week do you spend hunting during the dry season?

[hours7_7]

Answer: _____

specify7

79 Do you hunt during a specific season, or a few times a year? Please explain.

[specify7]

hunt

80 Do you hunt in and around the GNP/LNR?

[hunt]

₁ Yes

₂ No

what do

81 What do you hunt? Please explain.

[what_do]

why hunt

82 Why do you hunt?

₁ For meat/skin/trophy

[why_hunt.For_meat_skin_trophy]

₂ For own use

[why_hunt.For_own_use]

₃ To sell

[why_hunt.To_sell]

₄ Other _____

[why_hunt.Other1]

Other (Specify)

83 Other (specify)

[Other__Specify]

caught

84 What have you caught/hunted in the last 12 months? Please explain.

[caught]

end hunting

85 Section: end hunting

start selling food

86 Section: start selling food

Selling food

87 Selling food

hours8

88 How many hours a week do you spend selling food during the wet season?

[hours8]

Answer: _____

hours 8.8

89 How many hours a week do you spend selling food during the dry season?

[hours_8_8]

Answer: _____

sprcify

90 Do you sell food during a specific season, or a few times a year? Please explain.

[sprcify]

end selling food

91 Section: end selling food

start casual

92 Section: start casual

Casual Labour

93 Casual Labour (Enter 0 or "n/a" if the next questions are not applicable)

hoursi9

94 How many hours a week do you spend doing casual labour during the wet season?

[hoursi9]

Answer: _____

hours9.9

95 How many hours a week do you spend doing casual labour during the dry season?

[hours9_9]

Answer: _____

specify9

96 Do you work as a casual labourer during a specific season, or a few times a year? Please explain.

[specify9]

end casual

97 Section: end casual

start fishing

98 Section: start fishing

Fishing

99 Fishing (Enter 0 or "n/a" if the next questions are not applicable)

houra10

100 How many hours a week do you spend fishing during the wet season?

[houra10]

Answer: _____

hours10.10

101 How many hours a week do you spend fishing during the dry season?

[hours10_10]

Answer: _____

specify10

102 Do you fish during a specific season, or a few times a year? Please explain.

[specify10]

how much

103 How much (%) of your catch is for your own use? How much (%) for sale?

For own use?

[how_much.For_own_use]

For sale?

[how_much.For_sale]

time

104 Compared to five years ago, how long does it take to catch the same amount of fish? (e.g. 5 years ago it took me 3 hours and now to catch the same amount of fish it takes 6 hours). Please explain.

[time1]

end fishing

105 Section: end fishing

start services

106 Section: start services

Services (e.g. repairing shoes, carpentry, etc.)

107 Services (e.g. repairing shoes, carpentry, etc.) (Enter 0 or "n/a" if the next questions are not applicable)

hours11

108 How many hours a week do you spend providing a service e.g. repairing shoes, carpentry, etc, during the wet season?

[hours11]

Answer: _____

hours11.11

109 How many hours a week do you spend providing a service e.g. repairing shoes, carpentry, etc, during the dry season?

[hours11_11]

Answer: _____

specify11

110 Do you do provide a service e.g. repairing shoes, carpentry, etc, during a specific season, or a few times a year? Please explain.

[specify11]

what service

111 What services do you offer? Please explain.

[what_service]

5years

112 Compared to five years ago do you have more work providing your service now?

[q5years]

₁ Yes

₂ No

end services

113 Section: end services

Project Manager:

Transaction ID: 721

Print Date: Sep 24 2013 at 07:38:47 PM

Language: English - United States

Project Mode: Live

start professional

114 Section: start professional

Professional Services (teaching, medical, governin

115 Professional Services (teaching, medical, governing) (Enter 0 or "n/a" if the next questions are not applicable)

hours12

116 How many hours a week do you spend providing professional services e.g. teaching, medical, governing, etc, during the wet season?

[hours12]

Answer: _____

hours12.12

117 How many hours a week do you spend providing professional services e.g. teaching, medical, governing, etc, during the dry season?

[hours12_12]

Answer: _____

specify12

118 Do you provide professional services e.g. eaching, medical, governing, etc, during a specific season, or a few times a year? Please explain.

[specify12]

what services

119 What professional services do you offer? Please explain.

[what_services]

end professional

120 Section: end professional

start childcare

121 Section: start childcare

Childcare

122 Childcare

hours13

123 How many hours a week do you spend providing childcare during the wet season?

[hours13]

Answer: _____

hours13.13

124 How many hours a week do you spend providing childcare during the dry season?

[hours13_13]

Answer: _____

speciy13

125 Do you provide childcare during a specific season, or a few times a year? Please explain.

[speciy13]

end childcare

126 Section: end childcare

start traditioanl

127 Section: start traditioanl

Traditional healer/Midwifery

128 Traditional healer/Midwifery

hours14

129 How many hours a week do you work as a traditional healer or midwife?

[hours14]

Answer: _____

specigy14

130 Do you work as a traditional healer or midwife during a specific season, or a few times a year? Please explain.

[specigy14]

end traditional

131 Section: end traditional

Q10A

132 From all of the things that you said you do to for a living, please indicate the three most important things you do during the wet season. If you do less than 3 things, then just give me the one or two things that you do.

Reason 1 _____
[Q10A.Reason_1]

Reason 2 _____
[Q10A.Reason_2]

Reason 3 _____
[Q10A.Reason_3]

Q10B

133 From all of the things that you said you do to for a living, please indicate the three most important things you do during the wet season. If you do less than 3 things, then just give me the one or two things that you do.

Reason 1 _____
[Q10B.Reason_1]

Reason 2 _____
[Q10B.Reason_2]

Reason 3 _____
[Q10B.Reason_3]

Section C

134 Section C: IMPACT OF USAID PROJECTS ON LIVELIHOODS, TOURISM AND STATE OF THE ENVIRONMENT

c1

135 Do you know that since 2011 you live in or near a Reserve?

[c1]

₁ Yes

₂ No

c2

136 if yes, how did you know

[c2]

c3

137 Have there been changes in the way you fish?

[c3]

₁ Yes

₂ No

c4

138 If YES, Indicate the changes

[c4]

c5

139 Have there been changes in the place you fish?

[c5]

₁ Yes

₂ No

c6

140 If YES, Indicate the changes

[c6]

c7

141 Have there been changes in the time of the year you fish?

[c7]

₁ Yes

₂ No

c7.1

142 If yes, indicate the changes

[c7_1]

c8

143 Do you think that in the past two years the number of fisherman in the lake has increased or decreased

[c8]

₁ Increased

₂ Decreased

Why

144 Why do you say they have [% return c8.label() %]

[Why]

c9

145 Do you think that in the past two years the amount of fish in the lake has increased or decreased?

[c9]

c10

146 Two years ago, how long would it take for a fisherman to fill a basket of fish?

[c10]

c11

147 and now, how long does it take?

[c11]

c12

148 Have the types (names) of fish catch during fishing increased or decreased during the past two years?

[c12]

₁ Increased

₂ Decreased

c13

149 Is there any type of fish that you see in the past two years that you had not seen before?

[c13]

₁ Yes

₂ No

c13specify

150 Specify

[c13specify]

c14

151 Is there any type of fish that you have not seen in the past two years?

[c14]

₁ Yes

₂ No

c14specify

152 Specify

[c14specify]

c15

153 Has the amount of different types of fish caught changed during the past two years

[c15]

₁ Yes

₂ No

C15yes

154 if yes, please indicate

[C15yes]

c16

155 Two years ago, were you working?

[c16]

₁ Yes

₂ No

c17

156 if yes, what was your main job?

[c17]

c18

157 and now, what is your main job?

[c18]

c19

158 Are there important things for your living that you (and other people) stopped doing or started doing in the past two years?

[c19]

₁ Yes

₂ No

c20

159 if yes, please indicate.

[c20]

c22

160 Do you think in the past two years there are more jobs now than before 2011

[c22]

₁ Yes

₂ No

c23

161 Do you work in Lake Niassa Reserve ?

[c23]

₁ Yes

₂ No

c24

162 if yes, what is your job there

[c24]

c25

163 Do you know any one person working in the Lake Niassa Reserve?

[c25]

₁ Yes

₂ No

c26

164 if yes, what is their job there?

[c26]

c27

165 Is life better or worse now than it was two years ago

[c27]

- _1 Better
- _2 Worse

c28

166 Why do you say it will be (please indicate main changes)

[c28]

c29

167 Who is responsible for the management of the Lake Niassa Reserve?

[c29]

c30

168 Are you aware of the World Wildlife Fund also called WWF

[c30]

- _1 Yes
- _2 No

c31

169 If yes, what do you know about them?

[c31]

c32

170 Are local people involved in nature conservation

[c32]

- _1 Yes
- _2 No

c33

171 [Check with other informants whether this exists here] Are you familiar with the community ranger programme?

[c33]

- ₁ Yes
- ₂ No
- ₃ Dont Know
- ₄ Does not exist

c34

172 Are you a ranger?

[c34]

- ₁ Yes
- ₂ No

c35

173 Do you know any community member who is a ranger

[c35]

- ₁ Yes
- ₂ No

c36

174 Do you ever see tourists

[c36]

- ₁ Yes
- ₂ No

c37

175 Do you see tourist often?

[c37]

- ₁ Yes
- ₂ No

c38

176 Where do you see tourists?

[c38]

c39

177 Do you think the number of tourists and hotels has increased during the last two years?

[c39]

- ₁ Yes
- ₂ No
- ₃ Dont know

c40

178 Are local people involved in tourism development?

[c40]

- ₁ Yes
- ₂ No

c41

179 Is there any community organization for the use of natural resources (trees, bush meat, fish)?

[c41]

- ₁ Yes
- ₂ No

c42

180 if yes, what is the name of the organization(s)? [please indicate: interest groups, comité de gestão, etc]

[c42]

c43

181 Is the municipality of Metangula involved in tourism development?

[c43]

- ₁ Yes
- ₂ No

c44

182 Is the municipality involved in nature conservation?

[c44]

- ₁ Yes
- ₂ No

Photo

183 Please take a photo of the respondent

Name of Interviewer

184 Name of Interviewer

[Nme_of_Interviewer]

Comment

185 Do you have any comments regarding this survey?

[Comment1]

End

186 Thank you very much for your contribution.

ANNEX 9: EVALUATION STATEMENT OF WORK



USAID | MOÇAMBIQUE

DO POVO AMERICANO

SOLICITATION NUMBER: 656-13-00068
ISSUANCE DATE: April 5, 2013
CLOSING DATE: April 22, 2013
5:00 P.M. Maputo local time

Subject: Solicitation No. 656-13-00068 for Evaluation of the Biodiversity and Tourism Activities in Mozambique

Ladies and Gentlemen;

The United States Government, represented by the U.S. Agency for International Development (USAID/Mozambique) is seeking proposals for the Evaluation of the Biodiversity and Tourism Activities as described in this solicitation.

Submissions shall be in accordance with the attached information at the place and time specified.

Any questions on this solicitation may be directed in writing to Jorge Americo Silva, Procurement Agent, USAID/Maputo, JAT Complex, Rua 1231, No. 41. Bairro Central "C" Maputo, Mozambique, who may be reached at FAX No. (258) 21 352130, or email address mz_recruiter940@usaid.gov

Interested bidders should send the above via fax, email to the attention of the Procurement Agent, at the address indicated below. Please note that the attachments to e-mail applications in zip format can not be received to this mailbox. Please make sure that you do not send any attachments in zip format.

Late applications shall not be accepted.

The submission deadline is 5.00 P.M. Maputo time, April 22, 2013.

Sincerely,

Jorge Americo Silva
Procurement Agent
USAID/Mozambique
Phone: (258) 21 352 037
Fax: (258) 21 352 130
Mobile: (258) 82 121 0690
Email: jsilva@usaid.gov

Attachment: Solicitation No. 656-13-00068

Letter.advertisement00068.13

SOW for Biotourism Portfolio Evaluation

1. Evaluation Purpose

The Office of Agriculture, Trade and Business (ATB) of the United States Agency for International Development (USAID) in Mozambique requires support to complete an end-of-project performance evaluation of its biodiversity conservation and tourism activities¹. The Lake Niassa Reserve activity is managed by WWF, while the Gorongosa National Park is managed by the Gorongosa Restoration Project (or Carr Foundation). The Northern Mozambique Tourism Project (ArcoNorte) activity was managed by Nathan Associates.

The purpose of the evaluation is to:

- Assess the effectiveness, impact and sustainability of the ongoing biodiversity activities, and whether goals are being achieved before project end;
- Assess the effectiveness, impact, and sustainability of the completed tourism program and determine whether its goals were achieved;
- Inform the design of the follow on biodiversity and tourism activities, and long-term strategy

The evaluation will capture important information on lessons-learned and best practices from experience implementing ATB environment, conservation, and tourism activities. The evaluation will produce vital information, including targeted recommendations that will be useful for steering and redirecting projects and programs. The information will also be useful for future design and strategy making.

2. Background

2.1 Development problem addressed

USAID/Mozambique's Economic Assistance Objective (AO), "Inclusive Growth of Targeted Economic Sectors" seeks to support increased incomes for the poorest Mozambicans. The AO and its project's Performance Management Plan (PMP) reflect the USG Interagency Mozambique Country Assistance Strategy (CAS) 2009-2014 which sets as Priority Goal 2, to "Improve Competitiveness of Key Economic Sectors."

The Agriculture, Trade and Business (ATB) Office supports broad-based economic growth in key areas by promoting green growth in tourism and renewable energy, and addressing issues of economic governance including policy related to business climate and human capacity development. The AO strategy (shortened here for the purpose of this evaluation) is to, "improve Mozambique's business environment and strengthen natural resource-based enterprises."

About 75% of the population derives its living from agriculture, which contributes about one quarter of Gross Domestic Product (GDP). Currently, despite Mozambique's long and pristine coastline and significant wildlife, tourism provides only 1.8% of GDP compared to 9.7% of GDP in Tanzania, 7.6% in South Africa, and 32% in Mauritius. The difficult business environment in Mozambique hinders foreign investment and the establishment of the small and medium-sized enterprises that are essential to the development of the country.

Mozambique is endowed with abundant water resources, favorable climate, unique cultural and ecological assets, relatively low-cost labor, and proximity to major markets. Mozambique's comparative advantages in value-added

¹ An **activity** as described in ADS 200 is: a sub-component of a project that contributes to a project purpose. It typically refers to an award (such as a contract or cooperative agreement). **Project** as described in ADS 200 is: a set of executed interventions over an established timeline and budget intended to achieve a discrete development result through resolving an associated problem. **Program** as described in ADS 200 is: aligned with the CDCS's (Country Development Cooperation Strategy) Development Objective, and includes all projects and other activities that are associated with a particular Development Objective.

tourism offer excellent potential for private investment, job creation, and broad-based sustainable economic growth that is required to significantly reduce poverty. Yet Mozambique remains one of the poorest countries in the world.

This strategy is aligned closely with the Government of Mozambique (GOM)'s development objectives and strategies, particularly its national plans for improving the business environment and promoting tourism.

2.2 Development Hypothesis

The target population of the ATBs activities is the poor, primarily in northern and central Mozambique. The development hypothesis as outlined in the 2009–2014 CAS and in the draft ATB PMP is that the economic status of the poor in targeted areas will be improved by economic growth of two key sectors: agriculture and tourism of targeted landscapes of which the second is the focus of this evaluation.

Since the start of the CAS in 2009 the overall Assistance Objective has changed from: "Improved Competitiveness of Key Economic Sectors" to "Inclusive Growth of Targeted Economic Sectors." This reflects recognition that activities being implemented will not substantially affect the competitiveness of key economic sectors, but will rather be capable of stimulating economic growth. Similarly, "Agricultural Productivity Increased", "Agribusiness Strengthened," and "Natural Resource-Based Tourism Strengthened" were at the starting point the three Intermediate Results (IRs) posited as both necessary and sufficient to affect change in the AO. "Agribusiness Strengthened" has since been replaced with "Enabling Environment Improved" reflecting an increased focus on policy reforms (refer to the Results Framework in the annex).

This evaluation will focus on the last IRs: "Natural Resource-Based Tourism Strengthened" which will, by strengthening natural resource based tourism, encourage diversification of rural economies and ensure the protection of several areas where biological diversity is currently under threat. An emerging tourism industry will provide markets for agricultural products and off-farm sources of income for the rural poor. It will also build better management of national parks and reserves, protect economically important coastal infrastructure, and promote investment in responsible tourism.

Critical assumptions are: 1. Government of Mozambique (GOM) commits to policy reform to increase trade and empower farmers and industry. 2. USG provides \$40-50 million annually. 3. Political and civil stability. 4. No major natural disasters.

Context indicators for tracking the macro environment that may influence program results are: 1. National GDP and employment; 2. Tourism arrivals; 3. Percent Growth in Agriculture GDP; 4. United Nations Development Program (UNDP) Human Development Index; 5. Transparency International Corruption Index and 6. Poverty Rate.

As shown in the timeline below between the end of 2008 and end of 2010, USAID/Mozambique had three activities in the area of biodiversity conservation and tourism. However, the IR ("Natural Resource-Based Tourism Strengthened") to which they would have had contributed was not approved until April 2011. Arco Norte Tourism ended in FY10 while Gorongosa and Lake Niassa are still active activities scheduled to end in FY13 thanks to a one-year extension recently approved. Indicators 3.2 and 3.3 were mainly chosen as a placeholder for the new tourism and biodiversity conservation activities currently being designed. Thus, none of the three activities being evaluated reported either indicator 3.2 or 3.3. The only indicator with past data is indicator 3.1.

SOW for Biotourism Portfolio Evaluation

Jan-06	Jan-07	Jan-08	Jan-09	Jan-10	Jan-11	Jan-12	Jan-13
Arco Norte Tourism Project							
		Gorongosa Restoration Project					Extension
			Lake Niassa Reserve				Extension
				Country Assistance strategy (CAS)			
						Approved Results Framework	
							Approved PMP
Evaluation Timeframe							↑

2.3 Activity Background Information

Activity 1: Arco Norte Tourism Project

Activity Name:	Arco Norte Tourism Project		
Implementing Partner:	Nathan Associates	Life Span:	Jan 2006-Sep 2010
Funding Amount:	\$6,800,000	COR:	Robert Layng, USAID/Tanzania

BACKGROUND:

The purpose of Northern Mozambique Tourism Project (NMTP) was threefold: (1) to improve promotion of a Northern Mozambique tourism product, attracting more tourists to the region; (2) to increase investment in the tourism sector in the region to effectively accommodate and benefit from an expansion of the tourism industry; and (3) to preserve key environmental assets on which Northern Mozambique is based.

Project activities focused on increasing tourism arrivals and expenditures; attracting investments and creating jobs; building the capacity of the local service providers to respond to this expected growth while expanding the quality and quantity of tourism services and products provided; and preserving the environment.

The results of these activities as a whole were intended to be quantified through the following indicators:

- number of jobs created;
- amount of new investment generated;
- number of new rooms;
- increase in occupancy rates;
- number of new tourists attracted to northern Mozambique;
- average daily spending of these tourists;
- increase in number of conservation areas, in terrestrial and aquatic wildlife, and in new supporting businesses started.

EXPECTED RESULTS:

Based on the SOW from the task order, the expected results for the higher-level purpose (Creation of the Northern Mozambique Arc) are as follows:

- The Northern Mozambique arc will be established as a private-public community stakeholder forum for tourism development and promotion;
- Each province will have a Tourism Forum that will serve as a platform for dialogue and joint actions for tourism development between private sector industry operators, public sector institutions, and local

SOW for Biotourism Portfolio Evaluation

communities. The 3 Provincial Forums (Cabo Delgado, Nampula and Niassa) in turn will federate to form an Arco Norte Forum that will serve as an effective regional industry lobby group.

- At the end of three years, the Arc Norte Forums are expected to exist as self-sufficient and independent entities.

Component 1 (attracting tourists) was to be achieved by i) branding and promotion, and ii) historic preservation and development of interpretative systems. This component had both short-term and long-term results to be achieved within 5-7 years of project startup (2011-2013). The long-term results were as followed:

- International leisure tourist arrivals to the Northern Arc (estimated at that time 10%) increase to 15%;
- Average of 35,000 tourists visit the north per year with average length of stay of 7 days.

Component 2 (attracting investors) needed to assure coordinated development to maximize the benefits and mitigate any potential adverse impact of tourism on northern Mozambique's economy by creating a *Destination Management Plan* with Pemba as the gateway to the Arc. The major long-term target of this component was to increase the number of 3-5 star hotels from 300 to 500.

Component 3 (preserving the environment) was divided between two landscapes. The project was to support the establishment and management of a conservancy to protect Pemba Bay and monitor development activities in and around it. Additionally, USAID provided a direct grant to World Wildlife Fund (WWF) for the establishment of Lake Niassa Reserve (which is also part of the scope of this evaluation).

Other cross cutting activities such as policy reform and advocacy, capacity building, and catalyzing donor coordination also had long-term targets to be achieved:

- Mozambique's international tourism receipts increased by 5%
- Create more than 1,500 jobs in the short-term through continued growth in the tourism industry. 10,000 jobs over the long-term.
- Tourism-related small, medium, and micro enterprises created in conservation construction, tour operations, rentals, horticulture supplies, retail, music, and arts.
- Effective and vibrant tourism trade associations will exist in Cabo Delgado, Nampula and Niassa.

Activity 2: Gorongosa Restoration Project

Activity Name:	Gorongosa Restoration Project	Life Span:	Dec 2008-Dec 2013
Implementing Partner:	Carr Foundation	COR:	Robert Layng, USAID/Tanzania
Funding Amount:	\$5,500,000		Jason Katz, USAID/Mozambique

BACKGROUND:

The US-based Carr Foundation (now Gorongosa Restoration Project or GRP) entered into a 20-year Long Term Agreement (LTA) with the Government of Mozambique for the restoration of Gorongosa National Park in January 2008. Located in the central Mozambican province of Sofala, Gorongosa National Park (GNP) was once a national gem and a top tourist attraction with the highest concentration of wildlife in all of Africa. Tragically, Gorongosa was devastated during nearly 20 years of civil war, through poaching, landmines, and other atrocities.

GRP's activities connect biodiversity conservation with agriculture, forestry, eco-tourism, education, health, and other human development programs in order to take advantage of cross-sectoral synergies for improved conservation of biodiversity. The health of Gorongosa National Park is dependent on protecting the animals and managing the ecosystem, as well as helping the buffer zone human population live sustainably alongside the Park.

The long-term goal of this challenging project is to “*return the Park, the mountain, and the greater Gorongosa ecosystem to their former glory.*”

To help achieve this ambitious goal, the GRP established the following seven objectives:

- 1) Rehabilitate the Gorongosa ecosystem, including the wildlife, vegetation, and watershed;
- 2) Conserve biological diversity of this ecologically important part of the world;
- 3) Protect vital ecological resources, including the mountain and its moist evergreen forest;
- 4) Create sustainable practices for local communities, including organic farming and other income generating projects;
- 5) Increase Mozambican science and business capacity through training and education at the Community Education Center;
- 6) Boost the economy in the greater area of Sofala Province; and
- 7) Provide important new tools for communities living in and near the Park.

LOCATION:

The Park includes the rift valley floor where Lake Urema is present, and parts of the surrounding plateaus. Rivers originating on nearby Mount Gorongosa feed into the lake and water the plains.

In December 2010, a substantial area of Mount Gorongosa was added to GNP. The protected part of the mountain comprises the area above the 700m contour line, comprising an area of 367 km². The addition of Mount Gorongosa to the Park brought the total protected area to 4,087 km². A buffer zone, covering some 5,000 km², was established in the areas adjacent to the park boundaries.

FUNDING:

The Carr Foundation is contributing at least \$1.2 million per year toward the Gorongosa National Park restoration project. This includes funding for this project to cover operating costs related to biodiversity conservation activities, and also other costs related to the restoration of Gorongosa National Park. Other organizations and bi-lateral AID organizations, such as the Portuguese government’s IPAD, are also making contributions. The Ministry of Tourism within the Government of Mozambique is paying the salaries of many of the Park employees and is providing a portion of required Park equipment. Other partners will provide expertise as well as some *pro bono* materials and services and, in the case of wildlife relocation, animals.

On December 10, 2008 the Gorongosa Restoration Project was awarded the sum of \$3,999,635 by USAID under a Cooperative Agreement to assist the Biodiversity Conservation Activities of Gorongosa National Park. The AOR for this activity was Robert Layng until June 2012 when he departed to USAID/Tanzania. The current AOR is Jason Katz.

On December 2012, a one-year extension was granted for an additional \$1,000,000 until December 31st, 2013.

EXPECTED RESULTS:

At project signing in 2008 the results expected of this project were:

1. Wildlife Protection:

- Reduction in the prevalence of uncontrolled fires
- Wildlife monitored and protected via *in situ* basic veterinary diagnostic capability
- Lions surveyed
- Wildlife Sanctuary maintained and improved

SOW for Biotourism Portfolio Evaluation

- Disease monitored and causes of diseases in animals clarified
- Species recovery monitored

2. Poverty Reduction

- Increased access to health, education services, water and other social services as a result of shared park revenues, and Human Development activities
- Income generation through shared park revenues and diversified, sustainable non-timber forest products extraction
- Sustainable skills developed with training in organic agriculture, honey, and chicken farming
- Improved capacity of community bodies to participate in natural resources co-management

3. Better Education

- Increased access to education for local students
- Conservation training for employees and local community members
- Capacity building for Mozambican scientists and local community members at the Community Education Center

4. Park and Ecosystem Restoration

- Increased numbers of wildlife
- Restored forests
- Erosion control
- Fire awareness, prevention, and safety

5. Water System and Wetland Monitoring and Management

- Ensured availability of enough natural water sources to sustain wildlife populations
- Reduced turbidity of rivers
- Natural flow regimes maintained in the sub-catchments
- Environmentally conscious water abstraction for human use created outside Gorongosa Park
- Reduced water pollution
- Monitored quantitative and qualitative indicators of water in the ecosystem

However these categories changed in the Work Plan for 2012 and were categorized under the following headings:

- Conservation
- Mount Gorongosa Restoration
- Conservation Education
- Human Development (Community Relations)
- Science

Activity 3: Lake Niassa Reserve

Activity Name:	Lake Niassa Reserve	Life Span:	Aug 2008-Dec 2013
Implementing Partner:	WWF	COR:	Robert Layng, USAID/Tanzania
Funding Amount:	\$1,050,000		Jason Katz, USAID/Mozambique

BACKGROUND:

USAID/Mozambique awarded Nathan Associates, Inc., in January 2006 to design and implement a tourism program that contributes to poverty reduction both directly, by generating measurable economic benefits (jobs and investment); and indirectly, by demonstrating the positive effects of economic liberalization, and which can be

replicated in other locations and in other sectors of the economy. It excluded the establishment of the Lake Niassa Reserve which awarded to the World Wildlife Fund (WWF) in 2006-2008.

WWF's mandate was to establish a new protected area in and around Lake Niassa that will contribute to the conservation of the diversity, abundance, and ecological integrity of the Lake's physical and biological resources so that they may be enjoyed and used productively by present and future generations. It included building of consensus around the need for a Reserve, first phase community consultations, training of rangers, preparation of maps, and a draft Management Plan.

The second phase of the project went from August 2008 until September 2012 in the form of a USAID direct grant to WWF for the establishment of Lake Niassa Reserve with the objective of *preserving the environment* at a level of \$300,000 per year for a total of 4 years co-funded by COCA-COLA. The project focused on: (i) the promotion and development of a sustainable tourism industry in the north of Mozambique; (ii) supporting policy changes which will make the investment environment conducive to the private sector; and, (iii) ensuring that these happen in an inclusive and environmentally sound manner.

The AOR for this activity was Robert Layng until June 2012 when he departed to USAID/Tanzania. The current AOR is Jason Katz.

GEOGRAPHIC FOCUS:

Lake Niassa is a priority area for tourism investment under the National Tourism Policy. The WWF biodiversity activity involves a freshwater reserve on Lake Niassa that will protect its unique ecosystem, including the world's only surviving freshwater corals, over 1,000 species of fish (700 of which are endemic to the Lake), as well as rich bird life.

The creation of Lake Niassa Reserve (LNR) will also form the basis for a major tourism industry in Northern Mozambique by appealing to niche market segments interested in diving, bird watching, game fishing and adventure trails, and thus establish the North as an emerging destination. The main government partner for this activity will be MITUR, which will coordinate with MICOA and the Ministry of Fisheries.

The proposed area of the park would cover Lake Niassa and shoreline from Metangula to the Cobwe area, with wildlife areas totaling approximately 100,000+ hectares in the remote northern and central areas of Lago District (avoiding the gold-mining areas near Lipilichi Town).

EXPECTED RESULTS:

The first phase went from 2006 to 2008 and its expected results were:

- Lake Niassa Reserve documents are prepared and sent to national level for approval on the basis of well-prepared documents and widespread community support.
- Communities via their guard network are able to reduce damage to their aquatic resources, specifically through the declaration of no-take zones, reduction in damaging fishing practices, and the use of temporal and spatial closures to protect fishing grounds. At least ten communities will implement at least one protective measure.
- Ecosystem protection throughout the park and livelihoods program design in adjacent communities begin as soon as possible to halt erosion/destruction of habitats, species populations, and human livelihoods

During the second phase the following results are expected to be achieved by the grantee.

SOW for Biotourism Portfolio Evaluation

- Lake Niassa Reserve is declared on the basis of well-prepared documents and widespread community support.
- Within a year of LNR declaration, tourism investors submit intentions for 60% of tourism sites identified.
- Increasing levels of community involvement in LNR resource management activities as well as the developing tourism industry.
 - Contained within results/activities, plus 80% of communities affected identify at least two threats and adopt action plans to mitigate their effects.
 - 80% of the affected communities establish a community ranger team composed of at least 10 men and women volunteers, to help manage community resources; community rangers participate in patrolling and management activities.
 - 90% of communities nominate a LNR ranger candidate who becomes a LNR ranger.
 - Gender and HIV/Aids awareness issues are observed to be discussed in community committee meetings
- Ecosystem protection throughout the park and livelihoods program design in adjacent communities begin as soon as possible to halt erosion/destruction of habitats, species populations, and human livelihoods

2.4 Target Areas

The areas subject to this evaluation include the coverage areas of Arco Norte (Nampula, Niassa and Cabo Delgado), Gorongosa and Lake Niassa Reserve as well as national influence.

The Gorongosa park includes the rift valley floor where Lake Urema is present, and parts of the surrounding plateaus. Rivers originating on nearby Mount Gorongosa feed into the lake and water the plains. Additionally Mount Gorongosa was added to GNP and comprises the area above the 700 masl contour line, comprising an area of 367 km². The evaluation should include the buffer zone around the park coverage.

The area of the Lake Niassa Reserve Project would cover Lake Niassa and shoreline from Metangula to the Cobwe area, with wildlife areas totaling approximately 100,000+ hectares in the remote northern and central areas of Lago District (avoiding the gold-mining areas near Lipilichi Town). The buffer zone including communities should be part of the evaluation scope.

3. Evaluation Fundamentals

3.1 Audience and intended uses

As this evaluation is intended mainly to inform decision making in ATB's biodiversity and tourism activities, and to readjust and steer programming as USAID/Mozambique prepares for its CDCS, the primary audience is the technical teams in USAID/Mozambique, especially ATB, the support teams, both the Finance and Program Offices, and the Management team, in particular the Front Office.

Secondly, the implementing partners (IPs) involved in ATB activities would naturally be interested and could learn from findings and recommendations as well, but they are not the primary audience. Evaluation findings will, however, be presented to relevant IPs and they will be allowed to comment and make suggestions for questions.

Beneficiaries are not a direct audience for this evaluation. However, there may be areas where evaluation findings make sense to share with the beneficiaries.

On a broader level the evaluation will also be used to enhance in-house organizational learning and will provide important information to GOM, MICOA, and MITUR and other environment sector donors on environment

development in Mozambique and specifically on particular successful USAID/Mozambique environment approaches that can be scaled up at a national level.

3.2 Evaluation Questions

The evaluation questions are separated into three of the five criteria inspired by the Development Assistance Committee's (DAC) internationally recognized evaluation criteria.

Effectiveness:

- To what extent were the expected results of each activity met with special emphasis around the area of community relations and capacity building²?
- Which were the major factors influencing the results of key aspects of effectiveness such as activity design, implementation and M&E that were achieved and those that were not achieved?

Impact:

- What negative and positive changes occurred and to what extent the assistance provided by these three activities contributed to these changes?

Sustainability/Ownership:

- Is the growing catch in LNR sustainable and what are the effects on biodiversity and fish diversity?
- To what extent GNP/GRP working towards financial sustainability?
- Are any of the changes influenced by ArcoNorte still present/active?

3.3 Recommendations

Based on the above evaluation questions the Evaluation Report should provide targeted recommendations on how to improve the effectiveness, impact, and sustainability of ATB's biodiversity conservation and tourism activities. More specifically the evaluation should generate recommendations about scalability of projects; improvements in capacity strengthening; strengthening of local ownership of biodiversity conservation and tourism development; and, forging stronger direct partnerships with local organizations in line with USAID Forward reform process.

4. Technical Requirements

4.1 Evaluation Scope

The evaluation will cover the two different biodiversity activities under the current portfolio and the tourism activity that ended in 2010. Since most of the current programs and projects are follow on program/projects from the previous SO6 program, a review of relevant documents and data pertaining to SO6 activities back to 2006 will be required for this evaluation.

4.2 Evaluation Design

This performance evaluation will to the extent possible adhere to the new USAID Evaluation Policy (<http://www.usaid.gov/evaluation>) guidelines for more rigorous evaluation methods. This is a performance evaluation that will utilize a quasi-experimental design incorporating both qualitative and quantitative methods.

USAID/Mozambique is suggesting a before and after design where beneficiaries and stakeholders will be asked to remember the past and compare it to the current situation, in addition to comparing past data of the selected project indicators.

² This area is perceived by USAID/Mozambique as being one of the weakest in the Gorongosa and Lake Niassa in terms of achieving its results.

The evaluation policy is strict in defining “findings which should be presented as analyzed facts, evidence and data and not based on anecdotes, hearsay or the compilation of people’s opinions. Finding should be specific, concise and supported by strong quantitative or qualitative evidence.” Conclusions and recommendations will then be based on a specific set of findings.

4.3 Evaluation Methods

4.3.1 Data collection methods

The evaluation will use a mixed approach combining qualitative and quantitative methods. The suggestions given below are a reference point to begin collecting information, but the Mission expects the team to propose additional tools and methods to gather information and data.

In addition to using existing reports from implementing partners and other documents as listed in 4.3.2, the qualitative information may be collected from interviews of the following suggested list:

- Initial Mission Briefing: The assessment team will have an initial meeting with the USAID/Mozambique ATB team to discuss the proposed evaluation schedule and discuss its objectives and expectations
- Document Review: In addition to reviewing briefing materials provided to the team, the review team will be expected to identify additional documents and materials to fulfill the evaluation objectives. This should be completed before team begins interviews and site visits. This should include evaluations of current and past USAID environment projects and evaluations of other relevant donor-funded and environment sector development programs
- Key informant interviews: The information collected will be guided by the evaluation questions listed above. In addition to the document review, information will also be collected through personal and/or telephone interviews with key contacts. Additional individuals may be identified by the evaluation team at any point during the review. Key contacts include: USAID/Mozambique staff; other government partners from MICOA and MITUR; stakeholders and beneficiaries of current areas under management; other donors working on biodiversity conservation including: UNEP, UNDP, World Bank, DANIDA, AFD, etc.; other NGOs currently working on biodiversity. In order to reduce bias, the interviewer will have to develop instruments that will allow for a flexible conversation and filter the bias factors. In order to minimize bias a two-step process may be followed when selecting groups of informants and select individuals to interview. First, identify the groups and organizations from which key informants should be drawn. Second, select a few people from each category after consulting with people familiar with the groups under consideration. In addition, each informant may be asked to suggest other people who may be interviewed. When conducting the interviews recommended techniques include: use probing techniques, encourage informants to detail the basis for their conclusions and recommendations.
- Site visits: The evaluation team will travel to Gorongosa and Lake Niassa Reserve for face-to-face discussions with current actors in biodiversity conservation and park management. The team will also travel to key sites of the Northern Mozambique arc.
- Focus groups: Interviews of private sector (tourism and industry associations) and with groups from buffer zone communities. When selecting groups the same techniques suggested above should be followed.
- Surveys: If deemed feasible these interviews could be complemented by a rapid email survey to key stakeholders. A rapid email survey would be a rapid and low cost way of generating information from key stakeholders. Additionally, to execute the Before-After design the survey will be applied to buffer zone communities to determine their perceived impact due to project activities.

There is no significant baseline captured thus we would ask the evaluation team to reconstruct the baseline of the indicators relevant to each activity; the indicators 3.1 and 3.3 from the Results Framework and any other socioeconomic indicators needed to assess the progress of the Assistance objective. Other available sources of quantitative data are:

- Secondary data, such as data collected on ATB biodiversity, data from MICOA and MITUR, INE or other donor's
- Data from implementing partners performance reports and evaluations

The exact methods used can vary between evaluations, depending on the type of question and the data available. The evaluation team will specify in detail in the Inception Report the proposed most appropriate methods to be used for each evaluation question, given local experience, available resources, and conditions. These methods must be approved by the USAID/Mozambique's evaluation manager prior to commencing the evaluation.

4.3.2. Secondary data available

Tourism AADs 2006, Biotour PAD 2013, ATB PMP, PIR binders (Semi- annually), PPR (annually), IPs Quarterly and Annual Reports.

Implementing Partners Final Reports:

- Arco Norte quarterly and annual reports
- Arco Norte Project Description 2006
- Arco Norte Consultants' Reports on various project components (2006 – 2010)
- CARR-USAID Biodiversity Program Description (Nov'2008)
- GRP Annual Reports FY2010, 2011 and 2012
- WWF Lake Niassa Reserve (LNR) Project Description 2006
- WWF LNR Cooperative Agreement 2008
- WWF Annual Report FY2010, 2011 and 2012

4.3.3. Data disaggregation

Wherever possible data collected for this evaluation must be disaggregated by sex and age in order to capture the impact of USAID/Mozambique's biodiversity and tourism activities on two of USAID's cross-cutting themes: gender and youth.

4.3.4. Data Quality standards

Generally, the data collected should adhere to the rigorous requirements for data quality as stipulated in the new USAID Evaluation Policy, ADS 578, and ADS 203. This policy will be provided to the consultants prior to commencing the evaluation. The Inception Report should detail how the evaluation team will ensure that data collected will meet these requirements.

4.3.5. Data analysis

The evaluation will use mixed methodology wherever possible. The resulting qualitative and quantitative data that is collected will undergo separate, but complementary analyses.

The analysis of qualitative data will consist of four components: 1) data reduction (i.e. open coding, focused coding, axial coding – as appropriate), 2) displaying data, 3) drawing conclusions, and 4) verification through data triangulation (e.g., comparing qualitative and quantitative findings or comparing data from various sources).

Qualitative data should undergo analysis using a coding system to be developed by the evaluation team's Data Analyst, an expert in qualitative analysis. The consultant may use a variety of techniques, including computer-based tools (e.g., NVivo and Atlas.ti) to draw conclusions from the data (e.g., noting patterns and themes, assessing plausibility, noting relations between variables, and uncovering intervening variables). The consultant will protect against bias by testing and confirming findings (e.g. ensuring the basic quality of the data, checking findings by examining exceptions, and testing explanations).

The exact data analysis methods used can vary between evaluation questions, depending on the data available. The evaluation team will specify the exact methods to be used for each evaluation question in the Inception Report. These methods must be approved by USAID/Mozambique's evaluation manager prior to commencing evaluation.

4.3.6. Limitations of proposed design and methodology

The lack of baseline data, the lack of recurrent indicator reporting and a late approval of a results framework are all factors that limit the quality of the evaluation. Key informant interviews and focus groups of the communities are suggested as a primary data source for this evaluation and given the short timeline of the evaluation a cross-check may not be possible. The Before-After design depends upon the extent to which the baseline (or pre condition) can be established in the park grounds and neighboring communities. Additionally, when interviewing local communities the translation into the local language may difficult the interpretation of answers.

The evaluation team will have to address how their proposed evaluation will overcome these threats and minimize the limitations of the design.

5. Staffing

5.1 Team Size and qualifications

We are envisioning a team of two senior level experts. In line with USAID's new Evaluation Policy and USAID Forward, at least one of the two consultants will preferably be local or regional (Southern Africa). The **evaluation team** should have a senior environment specialist with extensive experience in evaluating biodiversity conservation in developing countries and another with experience evaluating tourism programs in Mozambique and its institutions. He/She should have extensive knowledge of tourism data and national surveys conducted in Mozambique.

The evaluation team will have a combined expertise in the following areas:

- Biodiversity conservation
- Tourism
- Park management
- Experience analyzing qualitative and quantitative data
- Southern or Eastern Africa experience
- Evaluating biodiversity conservation, tourism or environment projects
- Socioeconomic analysis

Both members should be fluent in English and preferably one of them should speak Portuguese or add a certified translator to the sections of the evaluations that so require a Portuguese speaker. At least one of the team members (preferable the team leader) should have extensive experience in qualitative and quantitative data collection and analysis methods.

The **team leader** must have experience leading evaluation teams as he/she will be responsible for managing and coordinating the overall evaluation process and be responsible for the overall compilation of the final Evaluation Report and be the principal interlocutor between the team and USAID/Mozambique. The team leader must have strong management skills and sufficient experience with USAID evaluation standards and practices.

In order to preserve integrity and transparency, none of the consultants could have worked for the areas or partners to be evaluated or having been part of the design of these projects or having been related in any way to any of the parts of this evaluation.

We envision that the evaluation team will recruit additional support to perform the administrative and logistic part of the quantitative data collection. The local support team should speak the local language(s) in the target areas.

In addition and according to the Evaluation Policy, a USAID employee will be part of the evaluation team under the supervision of the team leader and when he/she deems it feasible.

6. Management Information

6.1 Deliverables and reporting requirements

The evaluation team must provide the following deliverables:

- Draft Inception Report to be submitted to USAID/Mozambique with a summary of literature reviewed. For every evaluation question the Inception Report should specify, to the extent possible, which indicator(s) would be used and the data collection and analysis method expected as well as data sources. A work plan for the evaluation, logistics, and roles and responsibilities of the team members should be included. The Draft Inception Report should also address how the findings should be disseminated. The Draft Inception Report is due 5 days after commencing the evaluation and prior to arriving in country. It should be under 5 pages long excluding annexes.
- Final Inception report with detailed evaluation plan based on the draft. It will include precise definition on data collection methods; instruments developed and pre-tested; detailed data analysis plan; and detailed evaluation schedule, no later than 5 days after arriving in country. No longer than 10 pages excluding annexes of data collection instruments.
- After data collection and analysis, informal briefing on findings, conclusions, and recommendations before proceeding with draft report.
- Draft Evaluation Report to be submitted to USAID/Mozambique for review and comments no later than two weeks after terminating fieldwork including findings, conclusions, and recommendations
- Formal presentation on draft report contents before leaving country;
- Final Report which should be submitted to USAID/Mozambique no later than two weeks (14 days) after receiving the comments from USAID/Mozambique. It must be subject to the Appendix 1 of the Evaluation policy and must include:
 - Executive summary with key points such as project purpose and background, key evaluation questions, methods, and major findings;
 - Clearly identify the team's findings (disaggregated by sex), conclusions, and recommendations following an evidence-based approach;
 - While the findings can be lumped together, USAID recommends that conclusions and recommendations be broken down per question. Findings should be presented as facts and be concise and supported by strong quantitative and qualitative evidence. Each recommendation needs to be supported by a specific set of findings;

SOW for Biotourism Portfolio Evaluation

- Maximum 20 pages. If there is a need to explain certain topics in greater detail this should be done in the annexes;
- Annexes should include: the SOW, any SOW amendments, questionnaire formats, samples of tools such as PRAs, focus groups interview guides, questionnaire formats and other instruments used for the evaluation, and sources of information;
- Statement of differences from any of the team members will be included in the annexes should the need arise;
- Qualitative and quantitative sets of raw data after cleaning and the filled out questionnaires when final report is submitted.

6.2 Tentative Schedule, Logistics, and LOE

It is anticipated that the evaluation will run over the course of 10 weeks.

The team will be expected to gain familiarity with the programs and with Mozambique's environment sector prior to starting field work. The team is expected to begin the evaluation in late May or June 2013.

Week 1: The team will be expected to conduct a desk-top literature review during the first week planning stage of the evaluation to help it decide on the best and most cost-effective evaluation design. By day 5 the Draft Inception Report has to be submitted before travel to Maputo.

Week 2: Beginning of week 2, USAID reviews and comments on the Draft Inception Report. The evaluation team will also meet with USAID staff to clarify any issues related to the evaluation (team planning meeting), get/read any additional documents, and submit the final inception report to USAID with instruments developed and tested. Final Inception Report is due on day 10. Start Maputo based meetings with USAID/Mozambique, GOM, Donors, IPs, and other stakeholders in Maputo.

First half of week 3: Half of the week dedicated to finish Maputo-based meetings

Second half of week 3 , 4, 5 and first half of week 6: Travel to Gorongosa, Lake Niassa Reserve, and Northern Arc key sites.

Second half of week 6 and week 7: Back in Maputo, analyze data, and hold informal briefing on findings with USAID staff. By the end of week 7, formal presentation with preliminary findings, conclusions, and recommendations for USAID staff and other stakeholders will be held.

Week 8: By the end of the week, draft report submitted to USAID

Week 9: USAID comments on the draft report

Week 10: By the end of the week, final report submitted to USAID and the DEC.

SOW for Biotourism Portfolio Evaluation

		In country									
Weeks:		1	2	3	4	5	6	7	8	9	10
Planning	Literature Review	x									
	Draft Inception Report	x									
	Team Planning meeting		x								
Detailed Preps	Final Inception Report		x								
	Instruments developed and tested		x								
Data collection	Maputo meetings		x	1/2							
	Field work			1/2	x	x	1/2				
Data analysis	Data analysis							1/2	x		
	Informal briefing								x		
Reports	Outbriefing presentation								x		
	Draft Report									x	
	USAID/Mozambique reviews draft report										
	Final Report										x

Given the large distances between project areas, the transportation should be by air.

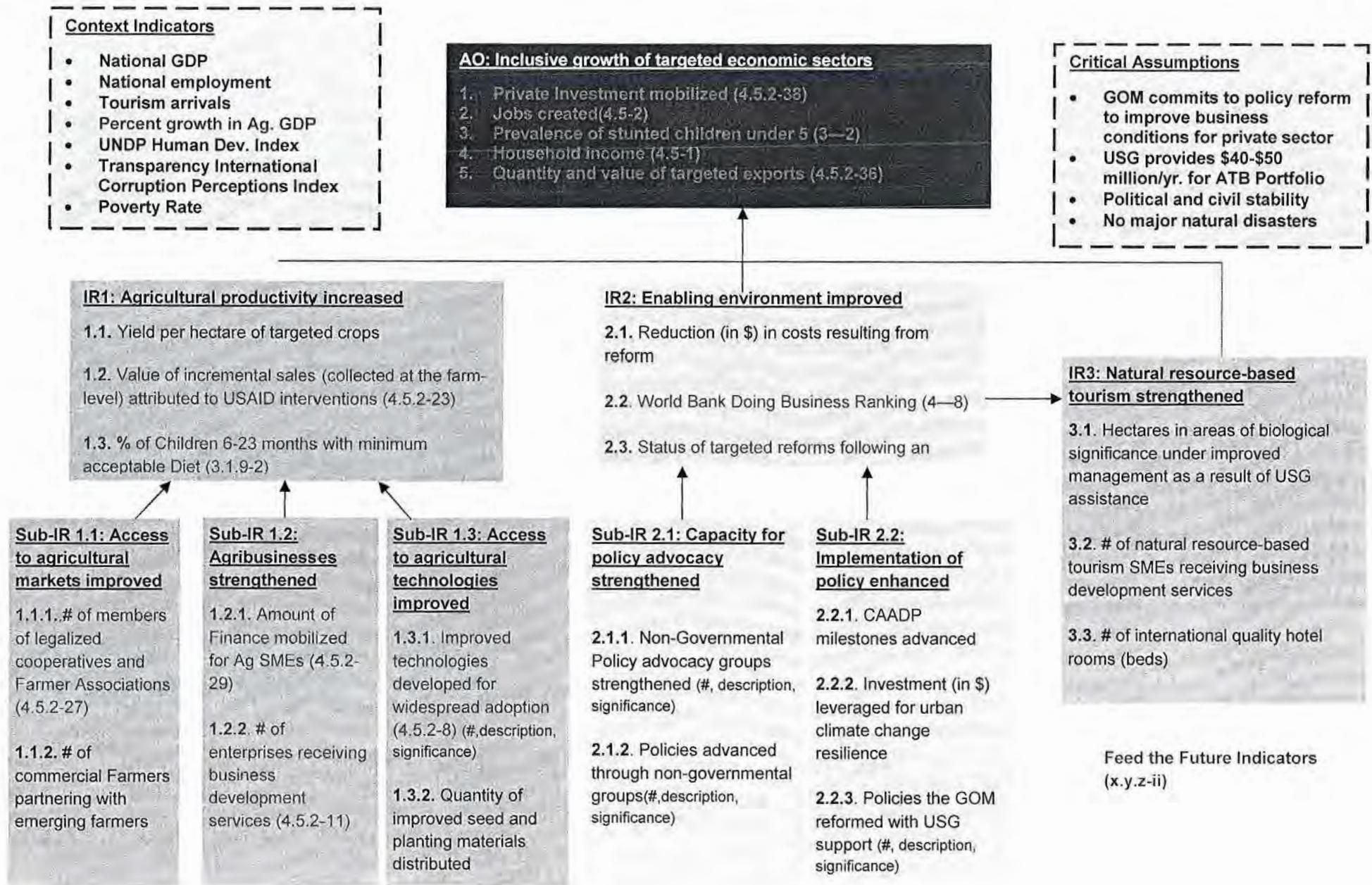
The evaluation team will be solely responsible for arranging all logistics for the evaluation including: tickets and accommodation, car rentals, and other necessary items for conducting the evaluation as well as hiring and training of support staff.

USAID/Mozambique will assist in facilitating contact with the relevant Implementing Partners, GOM and other donors.

The expected LOE is summarized below:

Weeks:		1	2	3	4	5	6	7	8	9	10		
		Days										LOE	
Team leader		6	6	3	3	6	6	3	3	6	6	6	54
Regional Contractor		6	6	3	3	6	6	3	3	6	6	6	54

Annex 1: ATB Results Framework



ANNEX 10: GNP HOUSEHOLD SURVEY DATA FREQUENCIES**GORONGOSA NATIONAL PARK - FREQUENCIES**

TOTAL PARTICIPANTS	285
MALE (M)	140
FEMALE (F)	145
AGE 18-34	130
AGE 35+	155
INSIDE PARK	196
OUTSIDE PARK	89
MALE	140
MALE (18-34)	63
MALE (35+)	77
FEMALE	145
FEMALE (18-34)	67
FEMALE (35+)	78
BUFFER ZONE	196
Male (0-34)	47
Male (35+)	52
Female (0-34)	42
Female (35+)	55
INSIDE PARK	89
Male (0-34)	16
Male (35+)	25
Female (0-34)	25
Female (35+)	23

Q9_1_	What do you do for a living?	Buffer zone			Inside Park			TOTAL
		MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	
Q9_1_1	Studying	2	2	4		1	1	5
Q9_1_2	Job (earning regular money)	13	6	19	1	1	2	21
Q9_1_3	Farming	89	91	180	39	47	86	266
Q9_1_4	Herding or Raising Livestock	7	4	11	1		1	12
Q9_1_5	Harvesting Trees	8	2	10	3		3	13
Q9_1_6	Harvesting fruit, seeds, nuts, roots, leaves, honey for use or selling (including medicinal plants) from the bush	2		2			-	2
Q9_1_7	Hunting	1		1			-	1
Q9_1_8	Selling food	7	13	20	4	1	5	25
Q9_1_9	Casual Labour	11		11	1		1	12
Q9_1_10	Fishing	12	3	15	20		20	35
Q9_1_11	Services (e.g. repairing shoes, carpentry, builder, etc.)	3	1	4	3		3	7
Q9_1_12	Professional Services (teaching, medical, governing)			-			-	-
Q9_1_13	Childcare	1	19	20		10	10	30
Q9_1_14	Traditional healer/Midwifery	1	2	3			-	3
Q9_1_15	Other	18	8	26		2	2	28
	TOTAL	175	151	326	72	62	134	460

Q26_ How is the access to Gorongosa by local people for visits?

IMPOSSIBLE				DIFFICULT				EASY				NO RESPONSE			
Buffer zone		Inside Park		Buffer zone		Inside Park		Buffer zone		Inside Park		Buffer zone		Inside Park	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
11	9		5	69	59	29	35	19	29	12	8				

		YES				NO				NOT SURE				NO RESPONSE			
		Buffer zone		Inside Park		Buffer zone		Inside Park		Buffer zone		Inside Park		Buffer zone		Inside Park	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Q9_1(2)	Is your regular job related to tourism or conservation?	8	6			20	17	1	1					71	74	40	47
Q9_1(7)	Do you hunt in and around the GNP/LNR?	1				17	18							81	79	41	48
Q9_1(11)	Compared to five years ago do you have more work providing your service now?	6	8	1		14	11	2						79	78	38	48
Q11_	Do you know that Gorongosa National Park was re-started (8 years ago)?	81	88	34	39	18	9	6	9			1					
Q16_	Did the re-start of Gorongosa NP make you change the way you farm?	13	8	4	2	76	73	34	40	5	11	3	6	5	5		
Q17_	Did the re-start of Gorongosa NP make you change the way you cut trees?	14	11	5	5	74	68	33	36	6	13	3	7	5	5		

		YES				NO				NOT SURE				NO RESPONSE			
		Buffer zone		Inside Park		Buffer zone		Inside Park		Buffer zone		Inside Park		Buffer zone		Inside Park	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Q18	Did the re-start of Gorongosa NP make you change the way you fish?	8	5	6	5	78	68	34	36	8	19	1	7	5	5		
Q19	Did the re-start of Gorongosa NP make you change the way you hunt?	11	19	5	9	73	56	33	33	10	17	3	6	5	5		
Q20	Are there important things for your living that you stopped doing or started doing due to the re-start of Gorongosa NP?	23	23	6	9	76	74	35	39								
Q21	Do you see changes in your life in the past 8 years (since the re-start of Gorongosa NP)?	34	47	2	9	65	50	39	39								
Q23	Do you work in Gorongosa?	7		1		92	97	40	48								
Q24	Do you know anyone working in Gorongosa NP?	66	55	24	20	33	38	17	27		4		1				
Q28	Are you aware of (or heard of) the Carr Foundation?	42	35	19	13	56	61	22	35	1	1						
Q28	Have you ever worked with the Carr Foundation?					57	62	22	35					42	35	19	13
Q29	Are local people involved in nature conservation?	58	55	26	26	20	11	9	5	21	31	6	17				

		INCREASED				DECREASED				DID NOT CHANGE				DON'T KNOW			
		Buffer zone		Inside Park		Buffer zone		Inside Park		Buffer zone		Inside Park		Buffer zone		Inside Park	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Q22_	How do you compare the number of wild animals in this region before and after the re-start of Gorongosa NP, 8 years ago?	62	45	30	26	10	11		2	7	11	4	6	20	30	7	14
Q23_	How do you compare employment opportunities in this region before and after the re-start of Gorongosa NP, 8 years ago?	41	42	4	4	10	6	3	2	21	23	26	22	27	26	8	20
Q24C_	How do you compare the sources of livelihood and income before and after the re-start of Gorongosa NP, 8 years ago?	25	29	4	2	8	3			59	47	32	36	7	18	5	10
Q33_	How do you compare the number of tourists in this region before and after the re-start of Gorongosa NP, 8 year ago?	40	39	15	7	3	1	1		4	6	5		52	51	20	41

		INCREASED				DECREASED				DID NOT CHANGE				DON'T KNOW				
		Buffer zone		Inside Park		Buffer zone		Inside Park		Buffer zone		Inside Park		Buffer zone		Inside Park		
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Q34_	How do you compare the number of hotels in this region before and after the re-start of Gorongosa NP, 8 year ago??	23	15	2	1	3					15	9	14	5	58	73	25	42

ANNEX 11: LNR HOUSEHOLD SURVEY DATA FREQUENCIES**LAKE NIASSA RESERVE - FREQUENCIES**

TOTAL PARTICIPANTS	256
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MALE (M)	137
FEMALE (F)	119
AGE 18-34	123
AGE 35+	133

MALE	137
MALE (18-34)	66
MALE (35+)	71
FEMALE	119
FEMALE (18-34)	57
FEMALE (35+)	62

NAME OF COMMUNITIES	MALE			FEMALE			TOTAL
	AGE 18-34	AGE 35+	TOTAL	AGE 18-34	AGE 35+	TOTAL	
Chicaia	9	8	17	2	3	5	22
Chilola	6	9	15	3	3	6	21
Chiuanga	16	9	25	12	8	20	45
Cobue	17	21	38	20	27	47	85
Meluluca	9	13	22	11	10	21	43
Ngolongue	9	11	20	9	11	20	40
	66	71	137	57	62	119	256

Q105_ HIGHEST LEVEL OF EDUCATION		MALE			FEMALE			TOTAL
		AGE 18-34	AGE 35+	TOTAL	AGE 18-34	AGE 35+	TOTAL	
Alphabetization		4	14	18	5	13	18	36
Primary (EP1)		17	29	46	10	17	27	73
Primary (EP2)		14	15	29	15	8	23	52
Secondary Education (1Ciclo)		20	8	28	8	2	10	38
Secondary Education (2Ciclo)		7	2	9	6	1	7	16
Elementary Technician				-			-	-
Basic Technician		1		1			-	1
Middle Technician				-	1		1	1
Vocational Training				-		1	1	1
Advanced				-			-	-
None of the above		3	3	6	12	20	32	38
TOTAL		66	71	137	57	62	119	256

Q9_1_ What do you do for a living?	MALE			FEMALE			TOTAL
	AGE 18-34	AGE 35+	TOTAL	AGE 18-34	AGE 35+	TOTAL	
Casual Labour	3		3			-	3
childcare			-	1	2	3	3
Farming	6	15	21	44	54	98	119
Fishing	26	23	49			-	49
Harvesting Trees		2	2			-	2
Hunting		1	1			-	1
Job (earning regular money)	3		3		1	1	4
Professional Services	2	1	3			-	3
Selling food	3	1	4	2	1	3	7
Services	4	2	6			-	6

Q9_1_ What do you do for a living?	MALE			FEMALE			TOTAL
	AGE 18-34	AGE 35+	TOTAL	AGE 18-34	AGE 35+	TOTAL	
Studying	2		2	3		3	5
Traditional healer/Midwifery		1	1	1		1	2
Other	1	2	3	2	2	4	7
Farming/Casual Labour	2		2			-	2
Farming/Fishing	8	16	24			-	24
Farming/Harvesting Trees			-		1	1	1
Farming/Herding or Raising Livestock/ Fishing			-	1		1	1
Farming/Selling Food/Fishing	1		1			-	1
Farming/Services		2	2	1		1	3
Farming/Traditional healer/ Midwifery			-		1	1	1
Fishing/Other		1	1			-	1
Fishing/Services	3	1	4			-	4
Fishing/Traditional healer/ Midwifery		1	1			-	1
Job (earning regular money)/ Farming		2	2	1		1	3
Studying/Farming	1		1	1		1	2
Studying/Fishing	1		1			-	1
TOTAL	66	71	137	57	62	119	256

Q10A_1_ From all of the things that you said you do to for a living, please indicate the three most important things you do during the <u>wet season</u>	MALE			FEMALE			TOTAL
	AGE 18-34	AGE 35+	TOTAL	AGE 18-34	AGE 35+	TOTAL	
Agriculture	11	26	37	28	35	63	100
Artisan			-		1	1	1
Baking bread & cooking			-	1	1	2	2
Builder	2	1	3			-	3
Business	6	1	7			-	7

Q10A_1_ From all of the things that you said you do to for a living, please indicate the three most important things you do during the <u>wet season</u>		MALE			FEMALE			TOTAL
		AGE 18-34	AGE 35+	TOTAL	AGE 18-34	AGE 35+	TOTAL	
Carpentry		1		1	1		1	2
Do not work/Stay at home		2		2			-	2
Domestic/Housework			2	2			-	2
Fishing				-	1	1	2	2
Grow vegetables		32	29	61			-	61
Guard, border guard		1		1			-	1
Hair Dresser		2	1	3	1	1	2	5
Head of Administration			1	1			-	1
Health services, nursing, midwife				-		1	1	1
Hunting				-	1	1	2	2
Live off my retirement		1		1			-	1
Looking after children		1		1	1		1	2
Making thatched mats		2	2	4	1		1	5
Sales of products		2		2	2		2	4
School			1	1			-	1
Selling food, alcoholic beverages and renting out rooms		1		1		1	1	2
Studying			1	1			-	1
Tailor		1	5	6	19	20	39	45
Teaching				-			-	-
Tree cutting/felling		1		1	1		1	2
Witch doctor				-			-	-
Other				-			-	-
TOTAL		66	70	136	57	62	119	255

Q10B_1_ From all of the things that you said you do to for a living, please indicate the three most important things you do during the <u>dry</u> season		MALE			FEMALE			TOTAL
		AGE 18-34	AGE 35+	TOTAL	AGE 18-34	AGE 35+	TOTAL	
Agriculture		8	14	22	22	25	47	69
Artisan				-		1	1	1
Baking bread & cooking				-	1	1	2	2
Builder		6	1	7	1		1	8
Business		1		1	1	1	2	3
Carpentry		1		1			-	1
Do not work/Stay at home			1	1			-	1
Domestic/Housework				-	3	3	6	6
Fishing		36	39	75	1		1	76
Grow vegetables			3	3	1	4	5	8
Guard, border guard		1	2	3			-	3
Hair Dresser				-		1	1	1
Head of Administration		1		1			-	1
Health services, nursing, midwife		2	1	3	1		1	4
Hunting			1	1			-	1
Live off my retirement				-		1	1	1
Looking after children				-	1	1	2	2
Making thatched mats				-		2	2	2
Sales of products		1		1			-	1
School		1		1	1		1	2
Selling food, alcoholic beverages and renting out rooms		2	2	4			-	4
Studying		2		2	2		2	4
Tailor			2	2			-	2
Teaching		1		1		1	1	2
Tree cutting/felling			2	2		1	1	3

Q10B_1_ From all of the things that you said you do to for a living, please indicate the three most important things you do during the <u>dry season</u>		MALE			FEMALE			TOTAL
		AGE 18-34	AGE 35+	TOTAL	AGE 18-34	AGE 35+	TOTAL	
Witch doctor			1	1	1	1	2	3
Other		2		2	2		2	4
TOTAL		65	69	134	38	43	81	215

Q45_1_ Is there any community organization(s) for the use of natural resources (trees, bush meat, fish)? if yes, what is the name of the organization(s)?		MALE			FEMALE			TOTAL
		AGE 18-34	AGE 35+	TOTAL	AGE 18-34	AGE 35+	TOTAL	
Association Modji				-	2	2	4	4
Association of Chagalalo			2	2		1	1	3
Associations				-		1	1	1
Board of fishing communities				-	2		2	2
Bola Moyo		1		1			-	1
CCP		1	2	3		1	1	4
Don't know		4	2	6	2	1	3	9
Know it exists but doesn't know name		2		2			-	2
Leader and Association				-		1	1	1
Management Committee		1	1	2			-	2
Manda Widines				-		1	1	1
sodiack association of fishermen		1		1			-	1
umozi				-		1	1	1
WWF		10	11	21			-	21
None				-	1		1	1
TOTAL		20	18	38	7	9	16	54

Q12_
Do you live within reserve boundaries?

INSIDE				OUTSIDE				NO RESPONSE			
MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+						
48	52	30	27	17	18	27	35	1	1		

Q34_
How do you compare the sources of livelihood and income before and after the creation of the Reserve?

IMPROVED				WORSENER				DID NOT CHANGE				NO RESPONSE			
MALE		FEMALE		MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+						
37	35	13	11	5	6	9	17	23	29	35	34	1	1		

INCREASED				DECREASED				DID NOT CHANGE				DONT KNOW				NO RESPONSE			
MALE		FEMALE		MALE		FEMALE		MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
18-34	35+	18-34	35+	18-34	35+	18-34	35+	18-34	35+	18-34	35+	18-34	35+	18-34	35+	18-34	35+	18-34	35+
Q23_ How do compare the number of fisherman in this area before and after the creation of the reserve?																			
35	40	3		3	3	1		2	1			5	3	10	9	21	24	43	53
Q24_ How do you compare the amount of fish in the lake before and after the creation of the Reserve																			
6	2	1		34	43	3						5	2	10	9	21	24	43	53
Q26_ How do you compare the types (names) of fish catch in the lake before and after the creation of the Reserve?																			
4	4			32	32	4						9	11	10	9	21	24	43	53
Q32_ How do you compare employment opportunities in this region before and after the creation of the Reserve?																			
30	28	22	25	2	1		2	21	29	17	13	12	12	18	22	1	1		
Q41_ How do you compare the number of tourists in this region before and after the creation of the Lake Niassa Reserve (LNR)?																			
36	32	22	20	2	3	1	2	16	20	4	13	11	15	30	27	1	1		
Q42_ How do you compare the number of hotels in this region before and after the creation of the Lake Niassa Reserve (LNR)?																			
38	22	19	14	1			1	17	35	10	9	9	13	28	38	1	1		

YES				NO				NOT SURE				DONT KNOW				NO RESPONSE					
MALE		FEMALE		MALE		FEMALE		MALE		FEMALE		MALE		FEMALE		MALE		FEMALE			
AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+	AGE 18-34	AGE 35+		
Q33_ Do you know anyone working in the Reserve?																					
34	38	23	19	26	27	19	23			2	10	14	5	3	5	6	1	1			
Q38_ Are local people involved in nature conservation?																					
23	27	27	29	13	11	5	7							29	32	25	26	1	1		
Q40_ Do you ever see tourists?																					
47	43	31	34	18	25	16	18			2	10	10						1	1		
Q43_ Are local people involved in tourism development?																					
18	10	22	21	25	31	8	12							22	29	27	29	1	1		

	YES				NO				NO RESPONSE			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
	AGE 18-34	AGE 35+										
Q11_Did you ever hear about Lake Niassa Reserve (LNR)?	42	46	36	34	23	24	21	28	1	1		
Q13_Did the creation of the Reserve make you change the way you fish?	23	28	1	1	22	19	13	8	21	24	43	53
Q14_Did the creation of the Reserve make you change the place where you fish?	16	18	1		29	29	13	9	21	24	43	53
Q15_Did the creation of the Reserve make you change the time of the year you fish?	4	7			41	40	14	9	21	24	43	53
Q16_Did the establishment of the Reserve made you change the way you do farm?	2	5	3	3	14	25	33	45	50	41	21	14
Q18_Did the creation of the Reserve make you change the way you cut trees?	1	1		1	14	9	13	9	51	61	44	52
Q19_Did the establishment of the Reserve did you change where you cut trees?				1		2			66	69	57	61
Q27_Is there any type of fish that you see in the past two years that you had not seen before?	6	6	1		39	41	13	9	21	24	43	53
Q28_Is there any type of fish that you have not seen in the past two years?	23	25	1		22	22	13	9	21	24	43	53
Q29_Has the amount of different types of fish caught changed during the past two years?	29	30	2		16	17	12	9	21	24	43	53
Q30_Two years ago, were you working?	25	28	2	6	40	42	55	56	1	1		

	YES				NO				NO RESPONSE			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
	AGE 18-34	AGE 35+										
Q31_Are there important things for your living that you (and other people) stopped doing or started doing in the past two years?	10	10	4	8	55	60	53	54	1	1		
Q31_2_Are there important things you got to do to live the last 5 years?	13	16	7	7	37	46	37	46	16	9	13	9
Q32_1_Do you work in the Reserve	4	8	1	1	61	62	56	61	1	1		
Q36_Are you aware of the World Wildlife Fund also called WWF?	52	53	22	23	13	17	35	39	1	1		
Q37_Are you involved in nature conservation?	29	26	31	36	36	44	26	26	1	1		
Q39_Are you familiar with the community ranger programme?	34	32	21	22	31	38	36	40	1	1		
Q39_1_Are you a ranger?	1	8	3	4	64	62	54	58	1	1		
Q39_2_Do you know any community member who is a ranger?	45	39	28	31	20	31	29	31	1	1		
Q40_Do you ever see tourists - Every Day?	10	2	8	8	37	41	23	26	19	28	26	28
Q40_Do you ever see tourists - Every week?	23	12	9	8	24	31	22	26	19	28	26	28
Q40_Do you ever see tourists - Every month?	33	28	18	16	14	15	13	18	19	28	26	28