

**Local Level Benefits of CBNRM: The Case of Mahenye Ward  
CAMPFIRE, Zimbabwe**

**By**

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**A Dissertation Submitted in Partial Fulfilment of the Requirements for the Degree of  
Master of Science in Social Ecology**

**Centre for Applied Social Sciences**

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**December 2012**

**Abstract**

CBNRM projects are meant for local people to benefit from managing and conserving natural resources around them. It is operational in the region but whether people benefit and the degree to which they do so is a matter unknown. This project looks at this matter, using Mahenye as a case study and employs Key Informant Interviews, Focus Group Discussions and questionnaires to tackle the matter. It observes that, (1) the income received is small and is declining mainly due to corruption and lack of accountability by the elite. (2) There is limited employment mainly by Chilo Safari Lodge. Some Campfire projects have also provided jobs for a small number of the local people. (3) Agriculture has been negatively impacted as food security is threatened due to crop destruction by wildlife and disease transfer from wildlife to domestic animals. It is also observed that there is competition for pastures between wild animals and domestic animals. The study recommends that there should be accountability mechanisms on income received; new projects should be created to provide income and employment.



**Acknowledgements**

I would like to express my gratitude and appreciation to Climate Development Knowledge Network (CDKN) through the Climate Compatible Development (CCD) project which funded the research. I thank my supervisor Professor V. Dzingirai and have contributed much to improvement of my writing and oral presentation skills.

I acknowledge the people who helped me during my field my fieldwork in Chipinge. These include Susan who provided me with accommodation, Chief Mahenye, Councillor Mwanamuni and Mr Masango their openness and willingness during discussions and interviews made my research a pleasure. I also thank the Chipinge Rural District Council (RDC) CAMPFIRE Manager, Mr Dembaremba for his assistance and willingness to cooperate with the research.

Lastly, I am pleased with the contributions made by CASS staff through organised seminars in refining my work. The assistance of my colleagues, especially Ashley whom I camped together with during fieldwork is warmly appreciated.

**Dedication**

To my mother Constance P., my sisters Memory, Moleen, Tendai and Marvellous. There are special times I was supposed to be with family and carry out certain duties but this research would not permit and you would always understand.

## **List of abbreviations**

ADMADE	Administrative Management Design
ART	African Trust Resources
CAMPFIRE	Communal Areas Management Programme for Indigenous Resources
CBNRM	Community Based Natural Resources Management
CCD	Climate Compatible Development
CDKN	Climate Development Knowledge Network
CDM	Clean Development Mechanism
EMA	Environmental Management Agency
NEC	National Employment council
PAC	Problem of Animal Control
RDC	Rural District Council
ZPWMA	Zimbabwe Parks and Wildlife Management Authority

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# **Chapter One: Introduction**

## **1.0 Introduction and Background**

Community Based Natural Resources Management (CBNRM) refers to an institutional development where natural resources such as wildlife is used to economically empower local people, providing the catalyst for them to organise themselves around democratic and managerial principles (Child *et. al.*, 2003). The central idea of Community Based Natural Resources Management is devolution of control over natural resources from state to local community (Western and Wright, 1994). The concept of Community Based Natural Resources Management occurred and was popularised around 1980s. It was an alternative to top-down; state centred environmental protection instituted in the 1960s and 1970s (Murphree, 2004). These state-centred conservation efforts fail locally and globally in promoting sustainable practices (Gibson & Mark, 1995 and Matke and Nabane, 1996). CBNRM in Eastern and Southern Africa can be used for a range of natural resources such as water, grazing lands and wildlife as noted by Brandon & Wells (1992).

Conservative thinking for the past had been dominated by ideas of “coercive conservation” (Peluso, 1993) or fences and fines (Wells *et. al.*, 1992). The colonial governments protected areas to conserve wildlife from local communities. This model treated traditional right to use and access as encroachment and poaching (Hasler, 1991) even though they bear significant costs. The costs included crop destruction by wildlife and direct attacks on people, the reason which the local people developed a negative attitude towards wildlife conservation.

There was also the growing realisation that law enforcement approach used by many governments hindered sustainable resource management as it created conflicts between users and law enforcement agents. A people-centred approach that addresses the needs of

the people was necessary (Murombedzi, 2003). Local people involvement in management of local environment through local institutions was seen as a way out of resource degradation crisis (Murombedzi, 2001).

Sub-Saharan countries welcomed the concept of Community Based Natural Resources Management. Zimbabwe was the first to use CBNRM in early 1980s through the CAMPFIRE model and there are now attempts to apply to forestry management (Child, 1996). The CAMPFIRE was conceptually designed to focus on resources such as wildlife, water, grazing resources and grasslands. In practice it focused on wildlife because it offered direct monetary benefits (Murphree, 1993). It was hailed internationally for its participatory approach. There was devolution of authority to the lowest levels (Murphree, 1997) and the local communities received incentives for conserving wildlife.

Zambia also initiated its community based wildlife programme in the early 1990s taking lessons from Zimbabwe's CAMPFIRE. Unlike Namibia CBNRM programme, ADMADE offered limited community control and benefits. Under ADMADE, the government sells concession contracts to Safari Operators in game management area buffering Zambia's National Parks. In Zimbabwe, the government allocates 75% of CAMPFIRE dividends to producer communities and the other is dedicated to supporting actual wildlife (Murombedzi, 1997). CBNRM initiatives in Botswana encourage communities to legally create trusts entrusted with allocating wildlife quotas in agreement with the wildlife management department (Mazambani and Dembetembe, 2010). They enter into a joint agreement with the private sector in all aspects of tourism, including trophy hunting and photography (Jones 2004). Namibia's approach borrows from and improves upon the CAMPFIRE experience. It gives tenure to the local communities over use and wildlife protection. Although each country has worked out its own model, they are all based on the idea that a resource is used sustainably.

Since the introduction of CAMPFIRE, there has been no conclusive evidence on the performance of the programme while other scholars like Murphree (1993) say it benefited people in terms of revenue, meat and participatory decision making. Other scholars like Murombedzi (2003) say that CAMPFIRE is appropriated by the RDC and the elites (see also Dzingirai, 1998.)

To summarise, under CBNRM schemes community are given economic development rights to use natural resources on the lands they occupy. They may generate revenue in many ways, such as trophy hunting and game viewing which the community receives a portion. This is underlined by the thinking that if communities benefit from the resources around them, they are more likely to conserve them. In principle CBNRM approach allows community members for input into decision concerning resource management and wildlife and distribution of benefits (Western and Wright, 1994).

### **1.1 Statement of the Problem**

Whereas CBNRM is intended to benefit local people through revenue and other resources, it is at all not clear whether this is the case. This requires investigation on why this is so and the probable impacts on conservation generally using Mahenye CAMPFIRE as a case study.

### **1.2 Theoretical Framework**

Common Property theory suggests that local people conserve the resources around them only if they benefit from them (Ostrom, 1990). The assumption is also supported by Murphree (1993) who argues that local people will even organise themselves and develop bodies that manage their resources only if they benefit. This theory is applied in this research by asking whether the people in Mahenye benefit from their natural resources and readjust their behaviour as a consequence.

### **1.3 Justification of the Study**

Central to this dissertation is the hypothesis that local people are no longer benefiting from wildlife management considering the costs they incur. The lessons learnt from the study will help to inform future CBNRM projects as a way that benefits the community at large from natural resources management.

### **1.4 Study Objectives**

This dissertation investigates whether local people of Mahenye are benefiting from the CAMPFIRE as part of a CBNRM programme.

Specifically the research objectives are;

- i. To investigate the income received at local level through the CAMPFIRE
- ii. To examine the employment opportunities offered by the CAMPFIRE.
- iii. To investigate the contribution made by CAMPFIRE to Agriculture.
- iv. To provide policy recommendations from objective 1, 2 and 3,

### **1.5 Research Questions**

Objective 1:





1. What are the sources of income derived from the CAMPFIRE initiative?
2. Is the income generated able to cover the costs incurred in communal wildlife management?
3. What are other livelihood sources of income, if any?

Objective 2:

1. What are the employment opportunities offered by the CAMPFIRE initiative?
2. Does other private players involved offer employment opportunities to the local people?

Objective 3:

1. How has the CAMPFIRE interfered with agricultural activities in terms of?

-  Contribution to problem of animal control
-  Contributions made to food security
-  Livestock production
-  Crop production

## **1.6 Hypothesis**

This study is based on the hypothesis that local people are not benefiting from wildlife conservation as is suggested by CAMPFIRE.

## **Chapter Two: Literature Review**

### **2.0 Introduction**

Benefits in CAMPFIRE are multiple. Murombedzi (1991) notes that, CAMPFIRE benefits tended to be used to refer to the revenue accrued to the communities and Rural District Council (RDC) from utilisation of wildlife. Other forms of benefits have been noted as infrastructural development and game meat where the trophy animal is edible.

Income for CAMPFIRE can be derived from both consumptive and non-consumptive activities. CAMPFIRE income comes from sport hunting, tourism and trophy hunting (Cumming, 1990). The administration of CAMPFIRE income is governed by Zimbabwe Parks and Wildlife Management Authority guidelines (ZPWMA). In the 1990s, CAMPFIRE income was distributed in the ration 4:1 to producer communities and Rural District Councils respectively (Murombedzi, 1996).

Originally, payment from safari hunting was to be made to the respective local authority who would then disburse it to producer communities (Taylor, 2009). Today CAMPFIRE payment has changed and is now made directly to producer communities. The RDC takes a monitor and advisory role as to the use of the income by communities (Madzudzo, 1995). This is done because sometimes communities abuse the benefits (Dzingirai, 2003). In this payment regime RDCs are accountable to the government through the Parks and Wildlife Authority. Direct payment arrangement gives Safari operators 50% of the commercial returns. The remaining 50% is distributed between the CAMPFIRE Association (2%), RDC (23%) and the community (25%) (Murphree, 2004).

According to Mazambane and Dembetembe, (2001) game meat is a major benefit in CAMPFIRE. In general meat is from plains game such as impala, bucks and eland. Occasionally animals such as elephants and buffaloes are killed for meat as part of the

problem animal control. Safari Operators' trophies often yield meat to the community and this is shared to every household equally although there are cases of monopoly by the village elites (Madzudzo, 1995).

Records of CAMPFIRE benefits have been mixed. Child (1995) notes that benefits from CAMPFIRE have been significant, in some instances invested in other activities such as agricultural production. Madzudzo, (1996) disagrees, showing that in some CAMPFIRE areas; there is no attempt to share benefits in terms of incurred costs of living with wildlife. Madzudzo, (1996) notes that, benefits are collectively consumed at ward level without any bias to those individuals who pay costs from wildlife. The point is echoed by Nabane *et. al.*, (1996).

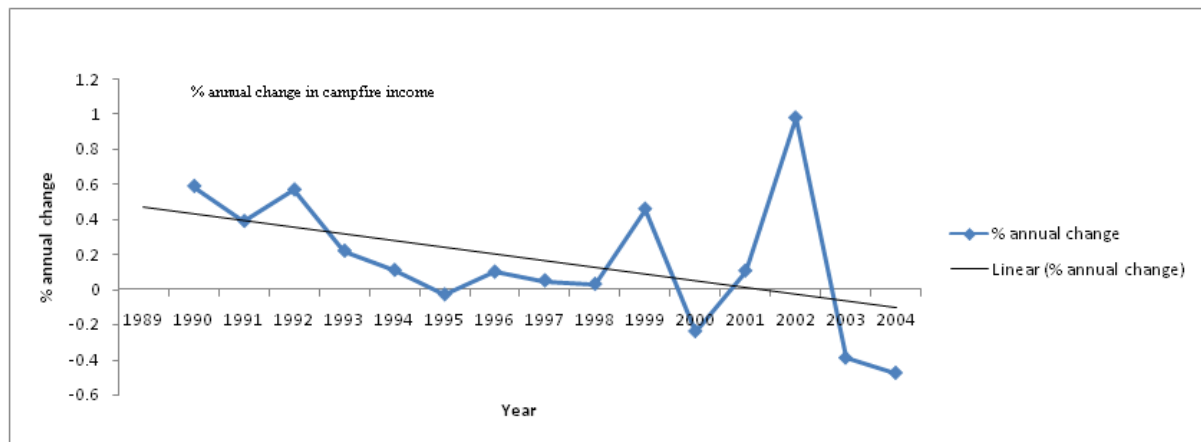
According to literature, there is a third benefit, employment opportunities (Murombedzi, 2003). According to Nabane, (1996) employment opportunities is realised through CAMPFIRE because safari operators employ local people as game trackers, skimmers, cooks and guides. Other employment opportunities come from projects funded by CAMPFIRE such as building, moulding bricks and tourist service providers (Child, 1995). Murphree (2004) agrees to this although he notes that employment benefits are minor, managerial posts and professional posts being occupied by outsiders. He also argued that Safari Operators are usually whites and they employ other whites on professional posts.

What ever their nature, benefits appear to be declining and inadequate to support local people's livelihoods. Bond (1997) has notes that since 1989 the CAMPFIRE revenues obtained by households have declined. Also Murombedzi (2003) has remarked that wildlife incomes are insufficiently constitute a source of capital accumulation. As such, investment in agriculture far exceeds CAMPFIRE revenue. This has been commented by Logan & Moseley (2001) who argue that income received per household in 1996 would enable a



household to buy a 17.47 kg of maize grain which can only last for about six days. Today this is no longer the scenario and wildlife income counts for nothing in household livelihood strategy. The Figure below shows trends in CAMPFIRE income (1989-2004) for all CAMPFIRE districts in Zimbabwe.

**Fig 1: Percentage annual change in CAMPFIRE revenue (1989-2004)**



*Source: Matema (2010)*

The figure above shows a decline in revenues received. While real income in ZWD shows an increase for the period 1998 to 1999 and 2001 to 2002, the annual change in CAMPFIRE revenue shows a downward trend since the inception of the program. From the period of 2002 there was a sharp fall; the years from 2005 onwards might also have experienced negative change in income. Several factors have contributed to the decline of CAMPFIRE benefits. The factors include human population growth (Child, 1995).

Murombedzi (2003) and Nabane *et. al.*, (1996) show that, population density is getting high in producer areas. This increase in population growth and immigration significantly reduces income per household in CAMPFIRE wards. According to them, an increase of immigrants

reduces the amount of income received at household level as had been noted in the case of Binga, Nyaminyami, and Dande ( Nabane *et. al.*, 1996).

Dzingirai, (1998) argues that there is reduction in CAMPFIRE related to activities of migrants. These threaten CAMPFIRE through killing of game. He notes how in Binga immigrants killed two elephants worth \$32 000 each in 1993. The killing of wildlife by immigrants deprives the district of valuable resource for household allocation and collective development, as well as local people from meat.

Taylor (2006), comments that there had been decline of African wildlife population due to loss of wildlife habitat. Loss of wildlife habitat may be a result of agricultural expansion due to human population growth. In CAMPFIRE this is linked to immigration. It has been argued by Rihoy, (1992) in Dzingirai (1998) that settlement in the forests drives away animals which is bases of CAMPFIRE and its multiple benefits.

By far the greatest reducer of benefits seems to relate to state and local authorities. Murphree, (1993) pointed out that Rural District Councils appropriated the bulk of the revenues generated by the producer communities, promised of revenue they have not kept or minimally. As a result, communities do not view themselves as joint owners of wildlife; and which must be eliminated where it interferes with agriculture (Murombedzi, 1996).

Finally, Bond (2001) argues that failure to devolve legal authority to sub-district level has meant that most producer communities have remained passive recipients of revenue transferred to them by Rural District Councils. Furthermore, the traditional leadership has continued to perform a key part in controlling use of local resources, as such they may misuse the benefits at the expense of the community (Bond, 2001).

In conclusion, it appears that there is a big contradiction in literature with some scholars saying these benefits are trickling down to communities living with wildlife. These scholars say there are factors which cause the magnitude of CAMPFIRE to dwindle, but that this benefit exists in the first place. On the other hand are other scholars who do not see any benefits from CAMPFIRE. These scholars say that the major beneficiaries of CAMPFIRE are local authority and local elites, not communities. Clearly, it is not clear what is taking place, and the research is required to shed light on this matter. This dissertation is an attempt to look at whether CBNRM has benefits for communities, using Mahenye CAMPFIRE as a Case study.

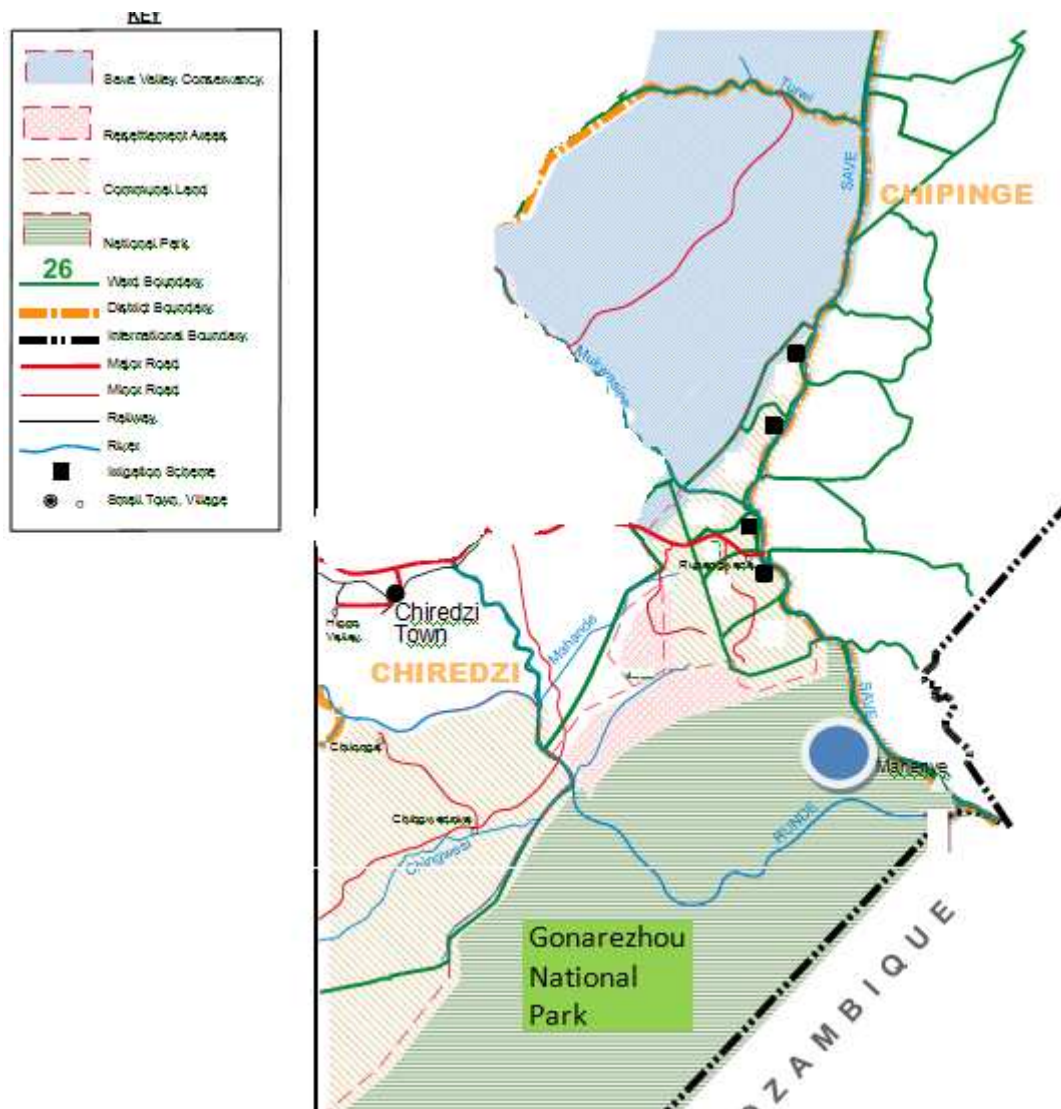
## **Chapter Three: Field research methods and study area**

### **3.0 Introduction**

The aim of the dissertation was to provide an understanding of potential benefits likely to come out of Community Based Natural Resources Management, specifically CAMPFIRE programme. The hypothesis is that CAMPFIRE benefits at local level are so minor and not meeting the needs of the people. The methodology and methods employed for the study are presented in this section. This is done in a systematic way, objective by objective, but before this a note on the study area.

### **3.1 The Study Area**

**Fig 2: Mahenye ward**



The data was collected from fieldwork conducted in Chipinge, Mahenye communal area which borders Gonarezhou National Park and Mozambique.

Mahenye Ward is a small community located in the south-east of Zimbabwe in Chipinge District, covering about 210 square kilometres (Peterson, 1991)). The area lies between Save River on the west and Rupembi on the east which forms the border with Mozambique. To the south across Save River is the northern boundary of Gonarezhou National Park. The area is tsetse infested; receiving low rainfall of about 450-500mm per annum supporting dry land cultivation of grains only in good seasons (Murphree 2000,). In pre-colonial times they

depended on wildlife and veld product and were replaced by reliance on cattle and subsistence cropping taking advantages of pastures to the Mozambican boarder and alluvial soils near the rivers. More so, the area is a meeting place of people of different cultural backgrounds. As noted by Jens and Cumming, (2013), it includes Venda, Karanga-Hlengwe people who expanded to the Zimbabwean side from South Africa and Mozambique. The early 19<sup>th</sup> century Nguni wars also resulted in further expansion and changing of boundaries and clans. To date the area is inhabited by the Shangaan people who are traditionally hunters and are the dominant group. Each cultural group has its own livelihood, Shangaan being hunter and gatherer and the Karanga are agro pastoralists. Mahenye has significant wildlife, the reason why CAMPFIRE started there.

### **3.2 Methodology and Methods**

The study used both qualitative and quantitative research methodologies. Qualitative methodology gives explicit information from the perspective of the subject rather than researcher. However such information may not be measured, hence quantitative methodology may be applied since it provides measurable information. Combining the strength of both approaches enables the researcher to come up with valid and reliable data from written records and first-hand information. The researcher used the following techniques to obtain the data required per each objective.

### **3.3 Methods Generating Data**

Methods for gathering this data were organised around specific objectives and below I show the methods that I used to gather data for my three objectives.

## **Methods to investigate income received at local level through the CAMPFIRE.**

The study uses secondary sources which are information that originally presented elsewhere such as books pamphlets and statistical records (Dunsmuir and Williams, 1992). In this case, the researcher looked at statistical records of dividends received by local communities and sources of income from reports accessible from the Rural District Council and Non-governmental organisations.

The reports reviewed had information from the year 1990 up to 2000. The Reports from the RDC were quite helpful but in some cases where the data was missing, the researcher used minute's books accessible from the local CAMPFIRE on missing information especially from 2000 up to 2012.

The use of secondary data alone cannot answer the question of impact of income on the local people and hence the researcher also used Key Informant Interviews to complement. Key informant interview is a qualitative method of gathering information from individuals with depth information on certain subjects or topics about their behaviour, opinions, feelings and experiences and are willing to share their knowledge. This helps in understanding of target audiences and issues under study (Oppenheim, 1992). Key Informant Interviews enabled the researcher to gather data quickly. It also provides an atmosphere where informants' shared sensitive information without peer influence which can affect their responses. The question guide on interviews is attached on the appendices.

The researcher interviewed the Headman, CAMPFIRE committees and some few elderly individuals from the society on dividends received by locals from CAMPFIRE, and see how people improved their livelihoods from dividends received. Information interviewed

includes sources of income and if there are any changes on the sources, more information is on the interview question guide attached on the appendices.

The problem with Key informants was that informants would give responses to please the researcher. The people of Mahenye thought I wanted to hear a good story about CAMPFIRE and clearly exaggerated CAMPFIRE especially its benefits. Interviewing a number of informants was helpful as it enabled me point the real situation on the ground. Gaps in Key Informants were verified using data from the minute books from the local CAMPFIRE committee.

### **Methods used to examine employment opportunities offered by CAMPFIRE**

In order to get the data on this matter, I used Focus Group Discussions. It is a qualitative research method that seeks to gather information from small groups of people ranging 8-12 participants beyond scope of quantitative methods (Kimel, 2003).

Focus Group Discussions were carried out in the study area comprising of different groups of people in terms of gender, class, sex, ethnicity and age discussing some employment opportunities across social classes, derived from the CAMPFIRE programme in the study area. The guiding questions are also attached on appendices.

The Focus Group Discussions were dominant and enabled the researcher to find out how such employment opportunities have affected lives of different groups of people and how local people relate to private players involved as they offer employment opportunities to them.

After the Focus Group Discussions the researcher chooses some few households to visit for the purpose of observation. These included Councillor for special interests, Chilo Lodge Head Chef, security guard, the Stores manager of Chilo Safari Lodge operators and the



Zambezi Hunters (Safari operator) Accountant on employment opportunities offered to the local communities from the services they offer.

### **Methods used to investigate on how agricultural activities were affected by the CAMPFIRE in the study area**

In order to come up data of impacts of CAMPFIRE to agriculture, the researcher employed Focus Group Discussions and Key Informant Interviews as local farmers and AGRITEX officer share out their knowledge on whether CAMPFIRE has implemented agricultural activities for instance by providing agricultural inputs or has posed a threat to food security. In addition the researcher used Questionnaire which is attached on the appendices and is simply a “tool” for collecting and recording information about a particular issue of interest and is made up of questions that have definite purpose related to the objectives of the research (Oppenheim, 1992).

The Questionnaire is annexed to the dissertation. It sought to capture information on general sources of livelihoods for the local people, Problem of Animal Control (PAC), disease control to livestock, crop production, challenges and opportunities offered to agricultural activities and other factors affecting agricultural activities and the extent of contribution. The questionnaire was written in English. I did pilot the questionnaires with the assistance of the interpreter since I could not speak Shangaani and my informants could not understand Shona my own language. The survey was based on the sample below.

### **3.4 Sampling**

A total of 100 households were interviewed in a community with 1520 households. A list of the households was first solicited and then become a basis of a randomised selection of informants. The home that was picked was then added to the list of 100 interviews. To do all the questionnaires the time I stayed in the field, which is two weeks, was enough to cover up

the research process without hurry. For the people to participate I made it clear that it was an academic research and no material benefits were derived, instead they would benefit from policy reviews when the paper is documented and some policy makers had access to it.

### **3.5 Data Analysis**

The data was analysed soon after the field work through SPSS, as well as MS Excel. Analysis was done mostly on frequencies to establish trends of CAMPFIRE contribution to agriculture from the inception of the programme up to date. Clarifications on data were made through phone calls.

### **3.6 Limitations**

The research was done soon after the National Census within the country. The visit provided ambiguous perceptions by the local people in the study area. At one end they confused the researchers with the census people and on the other hand the census facilitated or had already prepared the local people to welcome visitors.

Language was also a challenge; the area is dominated by Shangaan people who speak Shangaan language, and a few of Ndaou and Karanga language. To overcome this, I made use of a local interpreter who could speak all the languages.

### **3.7 Ethical Considerations**

A scientific research is guided and conducted in a way that meets certain ethical considerations. Ethics should be balanced when gathering knowledge in social science research (Moore, 2005). These include issues like informed consent on the part of participants, security issues and compensations if participants incurred any cost in the process of research. A number of ethical considerations were adopted in this research.

Firstly, the researcher informed participants about the research and were told that it was purely academic. As such participation was voluntary and I made it clear there was no incentive for participation so that people will not get discouraged if they were expecting an incentive for participation. Benefit would probably be derived in the event that the paper is published and issues responsible authorities look into issues that need attention.

In addition, the researcher made it clear that information disclosed would be private and confidential as participants would also give pseudo names and no real names were published for those who provided their real names. Assuring privacy of information provided, enabled participants to become open and share their information without any fear.

Finally, compensation was done for participants' time spends in research usually when holding focus group discussions. Food would be provided as in most cases the meetings would be stretching to lunch time. This was done to recognise the value of participants and sacrifice made to leave their homes and attend the group discussions.

## **Chapter Four: Research Findings**

### **4.0 Introduction**

This chapter presents the findings of the research which used methods that were discussed in the previous chapter. The results are presented systematically according to objective

#### **4.1 Objective 1: Income derived from CAMPFIRE**

Data indicates that CAMPFIRE is contributing income to the local community. The table below shows income received from natural resources management activities for the period of 1990- 2000. Unfortunately as a result of the post 2000 political and economic crisis in Zimbabwe no further figures were collected. The total revenue generated from wildlife projects since 1990 stands at approximately Z\$5 314 731 (US\$ 96 631). Between 1990 and 1996 all revenue came from sport hunting. From 1997 onwards, eco-tourism became another key revenue earner. Eco-tourism is based on the community / private sector (ZimSun) partnership and investment by the Group. The ZimSun had established two lodges and these pay a certain percentage to the community from their annual sales. The data also shows there had been an increase in income received from natural resources management as tourism became another major contributor from 1997. The data on income accessed was in Zimbabwean dollars, only total amounts were found in United States dollars.

**Table 1: Income For Mahenye Ward by Source: Source: Chipinge RDC**

**Income for Mahenye Ward by Source: Chipinge RDC**

Year	Sport hunting(Z\$)	Tourism(Z\$)	Other(Z\$)	Total(Z\$)
1990	28 000	0		28 000
1991	70 800	0		70 800
1992	179 910	0		179 910
1993	158 000	0		158 000
1994	163 736	0		163 736
1995	138 445	0	4 000	142 445
1996	200 000	0	78 979	278 979
1997	158 797	429 805		588 602
1998	389 170	545 312		943 482
1999	534 021	753 232		1 287 253
2000	1 085 544	396 980		1 482 524
Total Z\$	3 106 423	2 125 329	82 979	5 314 731
Total US\$	56 480	38 642	1 509	96 631
% of Income Totals	58%	40%	2%	100%

Source: African Resources Trust, 2002: 5

*Note: Other \* refers to sources of income other than sport hunting.*

**4.1.2 Allocation of Income**

Despite the increase in income received CAMPFIRE for the period of 1990- 2000, there is a decrease in income or dividends received by the local people. The table below shows percentage of allocation of income received from CAMPFIRE project. The data shows the

percentage of revenue allocated to community, for wildlife management, council levy and other projects which maybe operating as a result of the CAMPFIRE.

**Table 2: Percentage Allocation of Revenues – (1990 – 2000 Mahenye Ward)**

<b>Year</b>	<b>Household dividends</b>	<b>Wildlife Management</b>	<b>Council Levy</b>	<b>Projects</b>	<b>Total</b>
1990	100	0	0	0	100
1991	79	0	21	0	100
1992	58	6	17	29	100
1993	51	18	17	14	100
1994	50	17	22	11	100
1995	55	20			100
1996	50	13	20	5	100
1997	58	10	18	19	100
1998	57	9	22	10	100
1999	46	20	20	14	100
2000	53	20	21	6	100
Total %	53	15	20	12	100

Source: African Resources Trust, 2006: 5

As is clear from Table 2, a considerable amount is received by the community as direct income. Allocations between the various categories vary annually. The table shows that there had been a decline of income received by the community or households. In 1990 households received 100% of income but three years down the line it has reduced to 58%. From 1993 to 1996, percentage of income received by the local people ranges from 50-55%. In 1998 there had been a slight increase in household dividends to 58% and later on there had been a decline with average being 53%. Thus although there is income it is nevertheless not consistent.

#### **4.1.3 Income received from 2001-2012**

The period from 2000-2009 had been characterised by hyper inflation followed by economic decline in Zimbabwe. The income received was very little and could cover only administrative costs. Records for that period had been missing at districts level. The table below shows income received at district level for the period 2005-2009..

**Table 3: Chipinge, Mahenye CAMPFIRE revenue 2005-2009**

2005	2006	2007	2008	2009
0(ZWD)	7,777,000,000 (ZWD)	54,600,00 (ZWD)	3529 (USD)	89,118 (USD)

Source: Matema, 2010: 11

At local level, the records of income received for the period from 2001 were also missing. In a meeting attended by the researcher that included Chief, RDC CAMPFIRE Manager, Committee members, Hunter and the monitors, the hunter made it clear that he had not yet paid hunting quotas from the period he started operating, that is for 2011 and 2012 and promised to pay the fee. Also from focus groups meetings it was observed that the local people are no longer receiving dividends.

#### **4.1.4 Social Developments from revenue**

Income from the CAMPFIRE is used for social development. These are some of the developments made through income generated by CAMPFIRE and are also noted by Peterson (1991):

- Electrification & piped water with the help of ZimSun
- Classrooms & teachers houses at Mahenye School
- 2 grinding mills
- Construction of a model Shangaan cultural village for eco-tourism purposes
- Development of the 15 000 ha wilderness area
  - Clinic
  - Construction of a shop
  - Bought a T35 truck



#### 4.1.5 Social Investments

Some of the social investments are creating further income. The grinding mill, shop, vehicle, rentals from CAMPFIRE buildings among other activities contributes income for the ward as shall be indicated in the form of a table below.

**Table 4: Social investments**

Below I look at three major investments and their contributions.

Project	Monthly income
Grinding mill	The grinding meal is CAMPFIRE property and there are two grinding meals operating as CAMPFIRE property in the ward. At the moment it is the main source of income which enables the CAMPFIRE project to pay wages for their workers. Income received per month ranges from \$US900-\$US1200. For instance the records showed that income received for the month of March 2010 was \$1474, 65 and for April income received was \$US1015-00 (Mahenye ward clerk's income and expenditure record book).
Shop	The CAMPFIRE program owns a shop which sells groceries to the local community. There was a time when the shop was bringing income of \$US50 through renting the building to a community member. The CAMPFIRE is now using the shop starting from the month of September 2012 as they have generated some small capital from other income generating projects such as the grinding meal, to buy goods for sell.
Truck	The CAMPFIRE owns a T35 truck vehicle which they bought with income generated from the project. The vehicle is used to ferry people to and from the

	<p>nearby town, Chiredzi which is roughly 100km from Mahenye. The community made an arrangement that it ferries people three days per week and that is Mondays, Tuesdays and Fridays, which costs \$US7-00 for ferrying an individual to or from Chiredzi. In order to limit corruption by the truck operator, the community agreed that five committee members should accompany the driver every trip, which the researcher also thinks it may be a useful exercise if the committee members are willing and cooperating in playing such a challenging role as they may also have other personal activities to carry out. If the exercise works well they may be able to generate some reasonable amount of money.</p> <p>The vehicle is also used for hiring, usually to community members when they want to transport their goods which also bring some income. For instance, in 2010 at one incident a community member hired the vehicle and paid with a bull which was sold for \$US110-00. Thus the vehicle operations are also bringing revenue to the community through commuting and being hired by local people. Around US\$2000 monthly income can be derived by the truck through commuting. However at the moment the vehicle is not operating, thus another daily source of income has ceased until the vehicle is repaired which needs some money.</p>
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The income from the three investments is very minimal. But people do not care about benefits. What they count important is the service the project offers.

#### **4.1.6 Other income sources**

##### **Hunting quotas**

Safari operator pays about 55% of the hunting quota direct to the community. If all the monies are paid in full, the amount is large for the community to use in developing their area

or improving their livelihoods. For instance the community built a school teacher house for the Mahenye primary school. The local people revealed that the hunter still owes them some money and thus failing to clear his debt which also limits the local people 'source of income and hinders community development

### **Lodges**

There are two Safari lodges in Mahenye, Chilo and Mahenye lodge under River lodges of Africa which took over from ZIMSUN group of hotels during hyperinflation in Zimbabwe. Lodges operating in the area made an arrangement with the Council that they should pay 10% each of their annual profits to the CAMPFIRE. One lodge, Chilo is operating at the moment which had been closed for some time and has recently started operating; whilst Mahenye lodge had ceased operating in 2008. Thus when it was not operating the community could also not receive the revenue.

Lodges also pay a certain amount of photographic fee direct to the community for taking photographs of their wildlife and environment usually done by tourists

### **Rentals**

The CAMPFIRE program also owns another building in Mahenye apart from the shop and grinding mill building, which is being rented by a welder who is supposed to pay US\$50-00 per month and has not been paying the rent for quite some time. It has been almost a year without paying the rent as has been revealed by the clerk during an interview. As a result of this limits the local benefits.

## **4.2 Objective 2: Employment opportunities**

Data shows that the CAMPFIRE program provided employment opportunities to the local community through different services being offered as a result of the CAMPFIRE initiative. Listed below are some of the employment opportunities opened to the local people. Some

employees are directly paid by income from CAMPFIRE and others by service providers who are a result of the CAMPFIRE program such as lodge and safari operators.

#### **4.2.1 Lodge Operators**

Lodge operators are one of the major employers in the community. In the case of Mahenye communal area there are two lodges Chilo and Mahenye lodge, but only Chilo is operating at the moment. It had total number of twenty-nine (29) permanent employees and sixteen (16) part time workers (Field survey, 2012). From the all the employees both permanent and part time only one is not from the local community who is the Project manager. The following is a table which shows different department and the total number of employees in that department. During the time of the research period the lodge had been under renovations which limits number of visitors as well as employees, once the renovations are complete there are chances for recruiting more staff since all the rooms will be working hence accommodating more visitors.

**Table 5: Chilo Safari Lodge Permanent Employees**

<b>DEPARTMENT</b>	<b>TOTAL NUMBER OF EMPLOYEES</b>	<b>PERCENTAGE OF EMPLOYEES %</b>
<b>Maintenance (works)</b>	3	10.71
<b>Waiter</b>	2	7.14
<b>Waitress</b>	1	3.57
<b>*Project manager</b>	1	3.57
<b>Kitchen potter</b>	2	7.14
<b>Chef</b>	1	3.57
<b>Room and laundry</b>	5	17.86
<b>Garden</b>	2	7.14
<b>Security</b>	8	28.57
<b>Safari guide</b>	1	3.57
<b>Barman</b>	1	3.57
<b>Bar hand (assistant)</b>	1	3.57
<b>Total</b>	28	100%

Source: Field data, 2012

*\* Not local staff*

As revealed from the interview carried out with the Stores manager of Chilo Lodge, there other 16 part time workers who fundamentally are on the cleaning flow. More so, there is a policy for the lodge operator to recruit locals as first preference whenever there is a vacancy

as noted by the Stores manager from the interview conducted. It is until after the local fail to meet the professional requirements required that an outsider may be recruited. The amount of salary received by the permanent employees is also governed by the National Employment Committee (NEC) (Dzingirai, 2003).

#### **4.2.2 Safari Operator**

The current Safari operator in Mahenye is Zambezi Hunters. The Safari operator works with the local people who are employed as skinners, general cleaners and two trackers. The skinner is not a local since there is no one with the skills.

#### **4.2.2 Campfire and its income generating projects**

Interestingly, CAMPFIRE also employed permanent staff. These worked in income generating projects, the grinding mills, truck and the shop. In addition, employment opportunities for locals exist as monitors, clerks, shop assistance and miller. Table 6, below, presents employment offered by CAMPFIRE.

**Table 6: CAMPFIRE Employment opportunities**

<u>Source of employment</u>	<u>Number of employees</u>	<u>Percentage</u> <u>(%)</u>
<b>Clerk</b>	1	8.33
<b>Shop assistant</b>	1	8.33
<b>Grinding mill</b>	2	16.67
<b>Driver</b>	1	8.33
<b>School caretaker</b>	1	8.33
<b>Night watchers</b>	2	16.67
<b>Monitors</b>	4	33.33
<b>Total</b>	12	100%

*Source:* Local CAMPFIRE minutes books and Field survey, 2012.

A total of twelve people are employed by the CAMPFIRE to run the daily activities of the CAMPFIRE project at local level. The employees include the monitor whose role is to monitor the resources in the area, clerk who keeps records on income and expenditures for the CAMPFIRE.

During fieldwork some of the employees were however not working, that is the driver, school caretaker and the night watchers. The driver is currently not working since the truck is down. As for the night watchers and school caretakers for the Mahenye Primary and Secondary the CAMPFIRE has insufficient funds to pay for those posts.

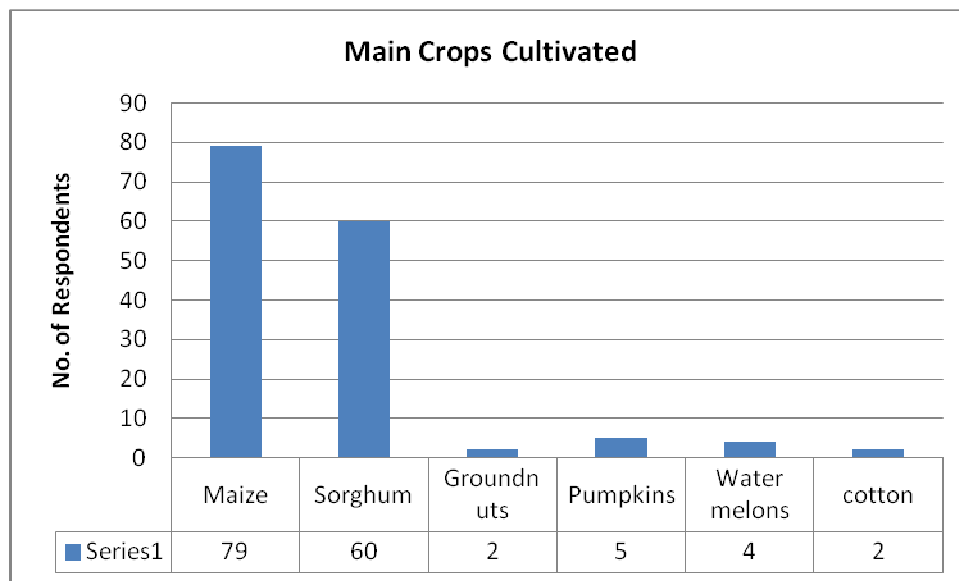
#### **4.3 Objective 3: Benefits to Agricultural activities**

There is little contribution done by the CAMPIRE to agricultural activities within the study area. The extension worker for instance revealed that the only benefit people derived is transport aid to carry inputs from towns. However it is not offered for free.

In terms of crop protection CAMPFIRE is not contributing anything to problem of animals. In the words of one participant, she said that '*zvirinani hazvo kutora CAMPFIRE yacho*', that is it is far much better to take back CAMPFIRE because it is no longer benefiting the local people. The people morn that the current Safari operator, Zambezi Hunters is not doing his duty, unlike the previous hunter Stockhill scared away wild animals from destroying the local people's crops. They also say that diseases from wildlife are affecting their livestock, with nothing being done to control them.

The fig below shows crops that are cultivated within the study area.

**Fig 3: Main crops cultivated**



Source: Field data, 2012

The figure above shows that crops cultivated include maize, sorghum, groundnuts, pumpkins, water melons and cotton. The main crops are maize and sorghum. Above 60 despondences had indicated that they grow maize and sorghum. Due to low rainfall in the study area some has resorted to cotton which is a drought resistant crop. Other small grains are groundnuts, pumpkins and watermelons. All of the crops grown are destroyed wild animals. They destroy either by eating or stamping the crops by elephants.

Below are some of the challenges faced by local farmers to boost their agricultural activities and CAMPFIRE is failing to attend to these challenges. These include:

- Problem of animal control
- Lack of farming tools

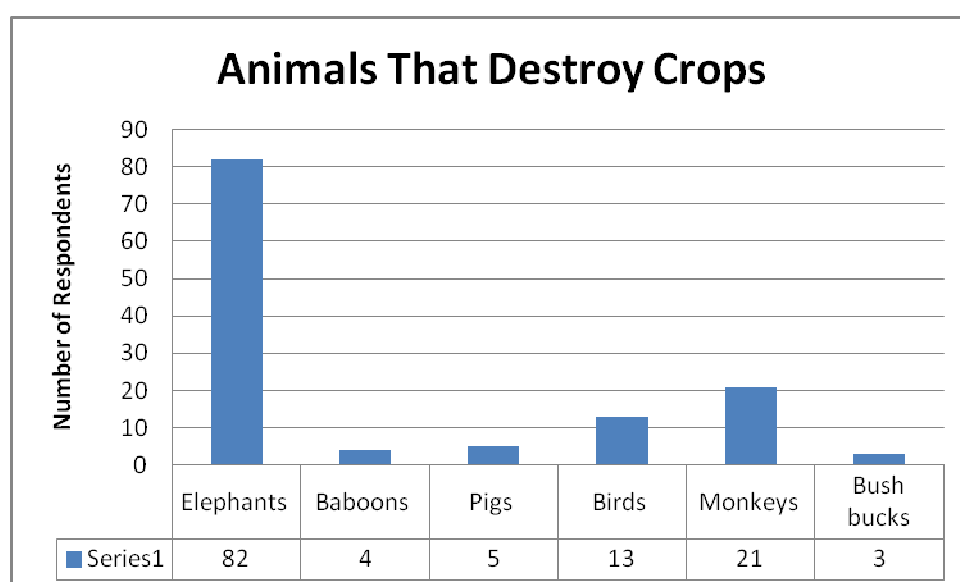
#### **4.3.1 Wild animals that destroy crops**

Problem of animals are the major threat to agricultural production as shown by the table below. The respondents have shown that elephants are the ones that destroy crops by eating



the crops as well as stamping before fruit production. They are followed by monkeys then birds. Other animals that destroy includes baboons, bush bucks and pigs but in small quantities as compared to elephants.

**Fig 4: Pie chart on wild animals that destroy crops**



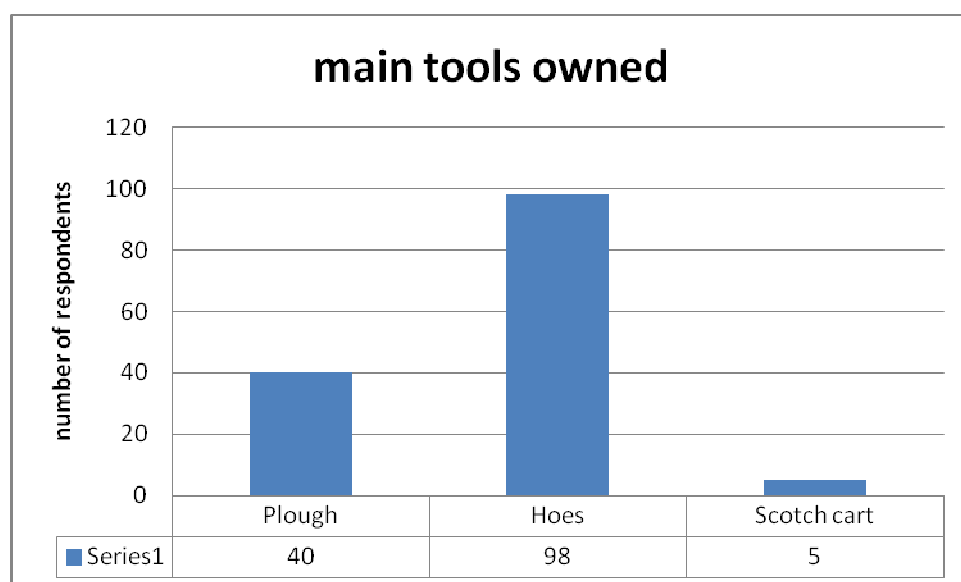
*Source: Field data, 2012*

The animals come from the nearby Gonarezhou National Park since there is no fence that boards the park and the community. It is also possible that some of the elephants maybe coming from the Mozambique side. Total of 82 despondences has shown that elephants are a major threat to their crops. Others mentioned that crop destruction by elephants was limited and this was because their fields were far from the park and the wilderness where they graze. Even though the destruction from elephants is limited they also face crop destruction from other animals such as monkeys and birds. It is difficult to control the movement of these animals. From the discussions with the local farmers, they also noted that they cannot control or scare away elephants unlike other animals as birds, baboons and monkeys they can scare them away making noise by beating metals for instance or putting some human statue in the fields. For elephants, making noise will result in human attacks and thus requires guns or

shootings by the hunter, which can scare them away. In addition to that, diseases from wildlife are also a threat to livestock. Diseases mentioned include anthrax mainly from buffaloes which affect livestock especially cattle.

Lack of farming tools is also a challenge to agricultural activities as shown by the table below. Only 40 respondents own a plough and majority use hoes for crop cultivation.

**Fig 5: Tools owned by farmers for crop cultivation**



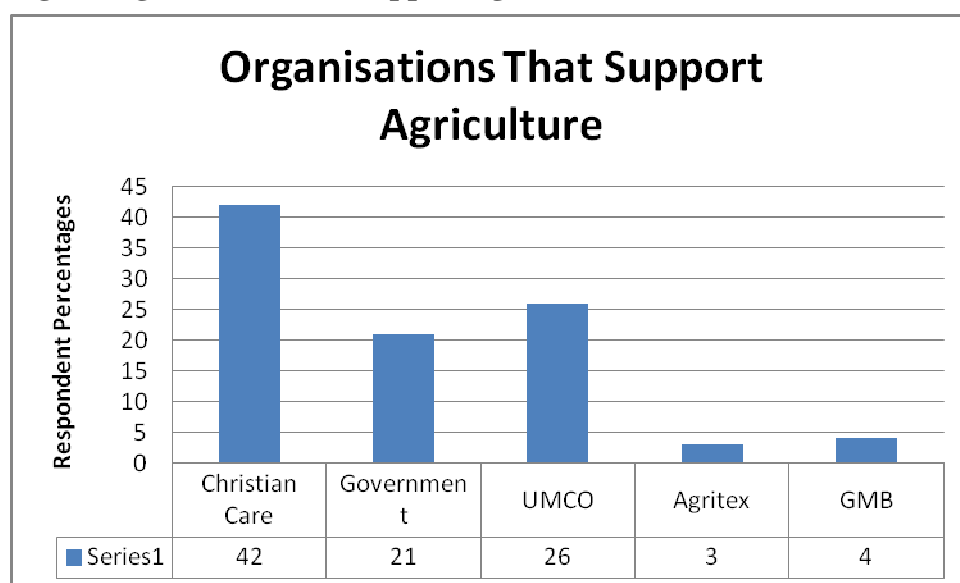
*Source: Field data, 2012*

As shown by the fig above 40 respondents indicated that they own and use ploughs for crop cultivation and a few have scotch cut to help them carry inputs and outputs, only about 5 respondents. The majority use hoes for land tilling which makes them cultivate a small area. The CAMPFIRE owns a tractor; from the interviews held the respondents revealed that they had never used the tractor to till their land. Only the chief has used the tractor for tilling the land. Hence, apart from crop destruction lack of farming implements also affect crop

production in the study area and little have been done if anything by the CAMPFIRE to curb the problem.

Because CAMPFIRE is not helpful on agriculture, and because food shortages are inevitably rampant, other organisations are coming to help. Below are some of the organisations noted by the people in the study area to be helpful?

**Fig 6: Organisations that support agriculture**



*Source: Field data, 2012*

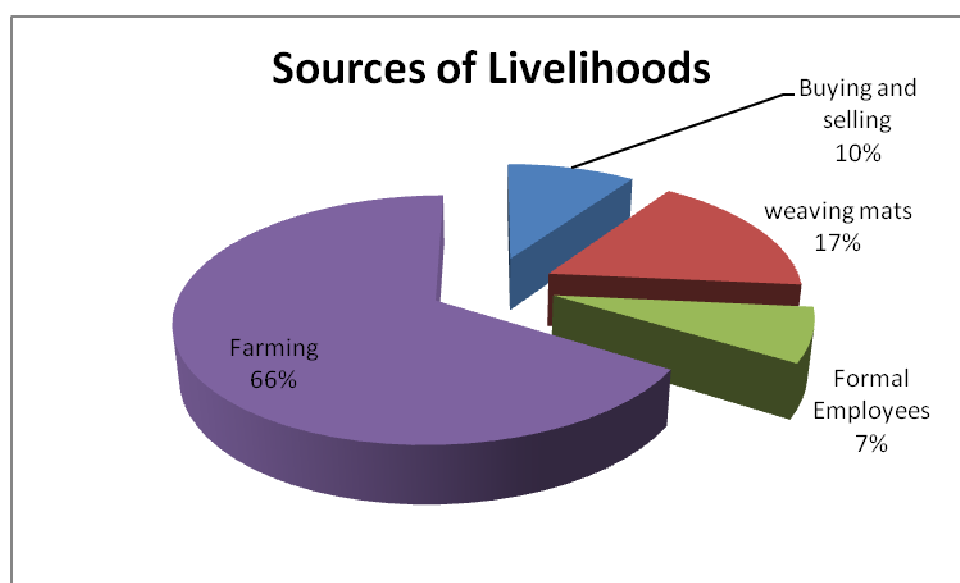
NGOs that mainly operate within the study area are, Christian Care and UMCO. They mainly provided food handouts to the more vulnerable groups such as orphans and the old people. They also provide maize seeds for cultivation as mentioned by some of the people interviewed and in the questionnaire. The government mainly provides the seeds as well as the GMB. AGRITEX mainly provides expertise, by provision of officers who educate the locals.

#### **4.3.2 Coping strategies**

Due to poor agricultural production which is a result of many factors including climate change resulting in droughts due to low rainfall and high temperatures which is worsened by

wildlife crop destruction, mainly elephants, monkeys and birds. The local people had resorted to other sources of livelihoods including weaving reed mats, buying and selling, be it clothes, vegetables among other things and beer brewing and a few are formally employed and others informally employed as welders, builders, mechanics of radios and bicycles. Below is a pie chart which shows other sources of livelihoods for the local people apart from farming.

**Fig 7: Other sources of Livelihoods**



*Source: Field data, 2012*

Apart from the 64% of the respondents who noted that they are into full time farming and have no other income generating projects apart from farming as their source of livelihood, the pie chart shows that 17% are into weaving mats, they take advantage of reeds available in the Save and Rupembi River nearby. They sell them locally or to the nearby Chiredzi town.

Others are into buying and selling which also provides them with income to feed their families. In most cases those into buying and selling it is vegetables and others it is clothes they import from nearby Mozambique country. Others, who are of course a few, go as far as

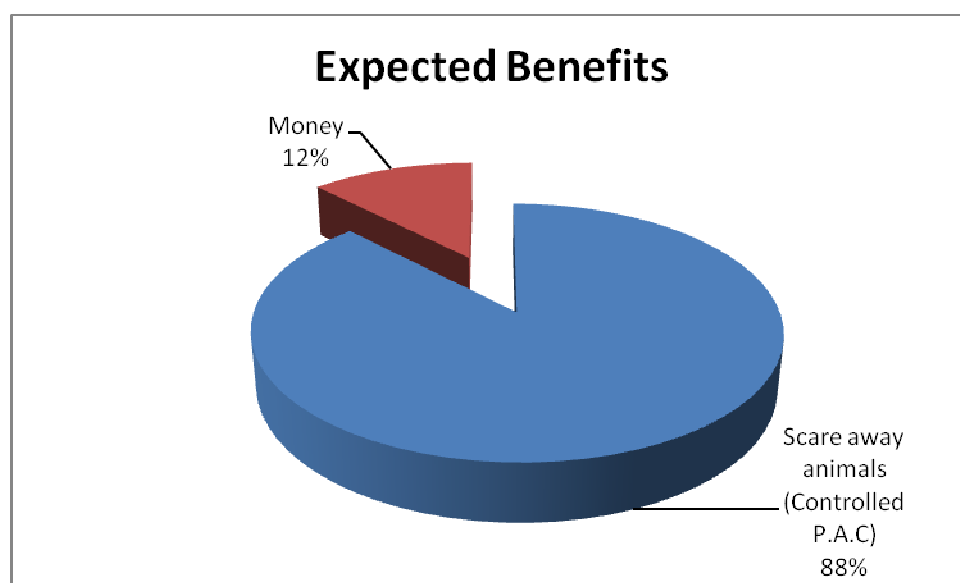
South Africa to import products for sale. More so, others buy reeds mats those who make them and they go and sell to the nearby towns such as Chiredzi and Chipinge.

The formal employees are usually those employed by the local CAMPFIRE project as millers, clerk and monitors for instance, teachers, and those employed at the lodge. This group earns a salary, thus unlike other groups, they do not have to depend on the demand of their services.

#### 4.3.3 Contribution to problem of animal control

When the project was initiated people had their expected benefits. Majority of the despondences, 88% noted that they expected control of wild animals so that they do not destroy their crops and a few 12% of the despondences said they expected financial benefits.

**Fig 8: Expected benefits**



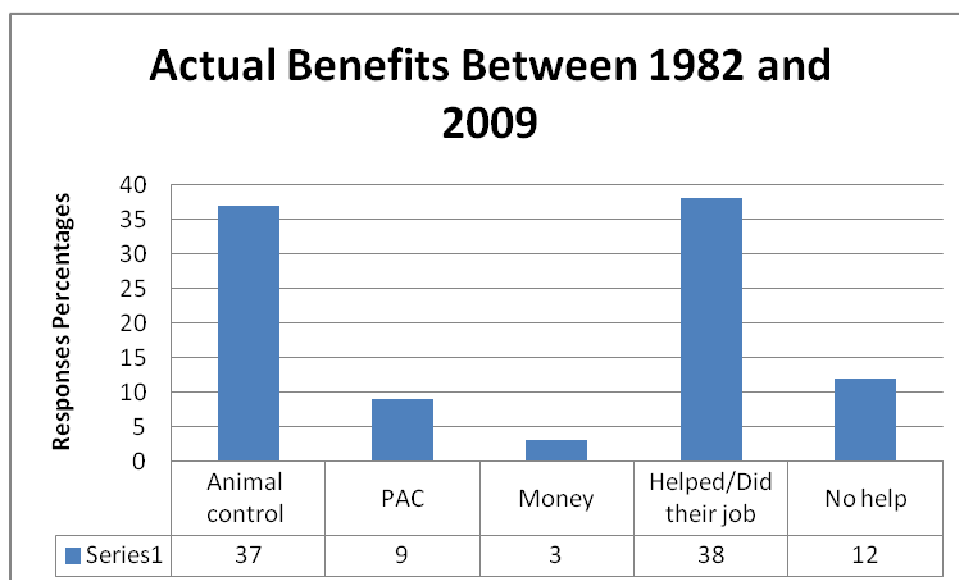
*Source: Field data, 2012*

The people indicated that scaring away animals was their major expectation from CAMPFIRE, since this is a big threat not only to their lives but also to their major source of livelihood which is agriculture. Others of course noted that they expected to receive money to

compensate for crop destruction by wildlife as well as develop infrastructure from managing wildlife.

At one period these benefits were enjoyed during the early years of its inception up to 2000 as people were receiving dividends and people also reported that the Hunter during that time was very helpful as e scared away wild animals from destroying their crops. They also noted that the hunter during that time was cooperative and could pay his hunting quotas in time. From 2000 the benefits had reduced because of a number of reasons as shall be discussed. Fig 9 shows actual benefits derived between 1982 and 1999.

**Fig 9: Actual benefits from 1982- 2009**

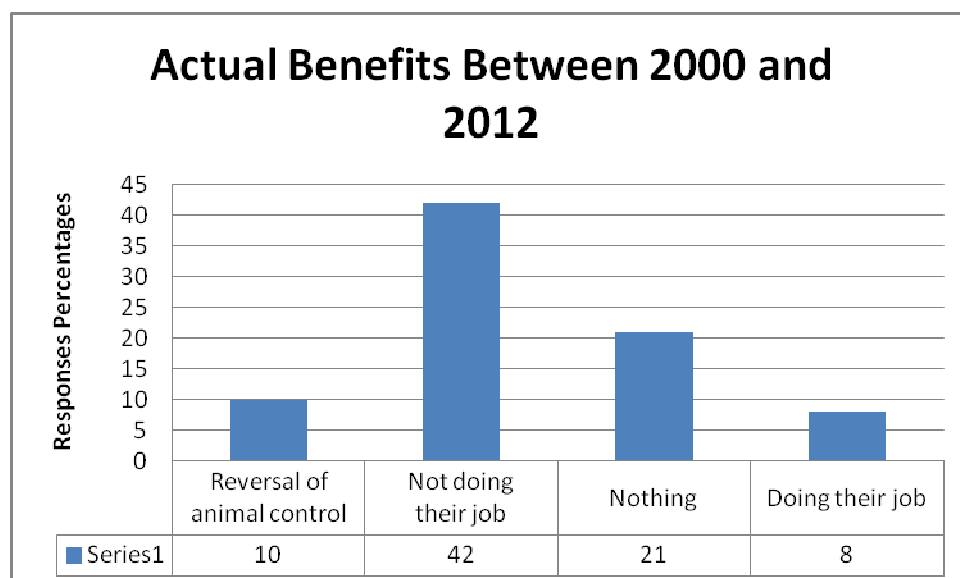


*Source: Field data, 2012*

From the period of 1982 the Safari operator who was Stockhill played his role, that is scaring away wild animals and even shoot as had been revealed from the focus group discussion. He also had sufficient ammunition to perform the task. Only a few, 12 people indicated that there was no help, usually these have no information for that period as they were still young. The rest said that he performed his duties either by controlling Problem of Animal Control (PAC) and people received dividends as he paid up his hunting quotas in time.. From the

period of 2000 the benefits reduced as has been noted by despondences as shown by the table below.

**Fig 10: Actual benefits from the period 2000- 2012**



*Source: Field data, 2012*

From the period of 2000 everything turned around. The respondents (41) had shown that the Safari operator is not performing his role and is also different from the previous that used to perform his duties. Again 31 people said the said the same thing as 10 of them said it is different on animal control from the previous whilst 21 of them said nothing has been done. Only 8 people mentioned that he performed his duties. Interviews had revealed that the Safari operator had no sufficient ammunition and usually comes when the farming season is over. Hence the yields have been reduced. Furthermore, there is an increase of wildlife in the area from Gonarezhou and the nearby Mozambique side. Respondents have noted that wild animals that destroyed their animals had now increased unlike in the previous years. In as far as the Safari Operator in the performed his duties in the previous years, the wild animals were not that much as they revealed that in the afternoon they can see some groups of elephants grazing near their homes.

The respondents indicated that yield had been reduced due to the problem of animal control. Others pointed that climate change had influence crop and animal production as a result of low rainfall which had also reduced availability of pastures for the livestock which they are suppose to share with wild animals. Others had not yet noticed the trends and this were usually young respondents or either they cultivated their crops to the other end where wild animals do not go or they also cultivate near rivers such that despite low rainfall sometimes they take advantage of moisture and floods near the river.

Most of the people had noted that there is a reduction in crop production as they mentioned that it is mainly by destruction by wildlife destruction. They also noted that there is an increase in wildlife within the study area unlike the previous years. As gathered from the interviews carried out even those who cultivated their crops where wild animals from the park does not destroy crops, they also noted a reduction in their crop production which they interpreted as mainly due to climate change specifically high temperatures and shifting of rainfall seasons. Others were new farmers and had not yet noted the changes in crop production.

#### **4.3.4 Overall evaluation**

The overall evaluation of contribution made by CAMPFIRE to agricultural production had shown that little was done by CAMPFIRE to increase food security within the study area.

Only a small number of people indicated that they benefited from CAMPFIRE and this may be because of some political reasons, for instance local people are not willing to criticize any government initiative, due experiences they have seen for the past years when there was political instability. Again, during the first years on inception of the program the problem of animal control was minimal mainly because of the Safari Operator who did his job; local



people complained that the Safari Operator working with them during the research period was not doing his duties, for instance scaring away wildlife from destroying crops.

## **CHAPTER 5: Summary, Conclusion and Recommendations**

### **5.0 Summary**

In this final chapter, I provide a summary of the findings. The findings are themed around the main objectives of this paper. The next sections will look on the conclusion and recommendations made.

In the previous chapter I looked on the findings of the objectives that came out from the field work using both quantitative and qualitative research methods. To be specific the research employed focus group discussions, Key Informant Interviews, secondary sources as well as questionnaires in gathering the data.

From the first objective, which is examining income received the researcher noted several sources of income. The main sources of income are sport hunting, ecotourism and social investments which create further income with sport hunting being the major source of income. It is observed that despite the increase in elephants and income received from CAMPFIRE, the revenue allocated to the producer community remains minor and is declining. The tourism service providers only provide 10% of their annual profits which is very little for the whole community. Also income from the social investments is not even enough to pay the local CAMPFIRE staff and maintain Campfire properties. Thus the income received at local level is insufficient compared to the costs by CAMPFIRE.

Objective two investigated the employment opportunities offered by CAMPFIRE in the study area. I found out that while CAMPFIRE offers employment opportunities to the local people, only a small number of people are employed considering the total population of the community. Also hunting is seasonal and those employed by the hunter only work during

hunting season. Only the lodges provide a considerable number of jobs. The service providers are business oriented and hence employ a small number of people to maximise profit.

Findings from the third objective on examining contribution made by CAMPFIRE to agriculture revealed that there is very little contribution made in the study area. That little contribution reaches disproportionately small number of people in the area. Wildlife destroy local people's crops, as well as transmit diseases to livestock and nothing has been done to curb the effects. Thus CAMPFIRE has threatened food security in the study area which is further worsened by climate change.

## **5.1 Conclusion**

The hypothesis for this thesis is that benefits can be derived from CAMPFIRE but the local people are not receiving these benefits.

Findings from the first objective have proved that CAMPFIRE provides income mainly through sport hunting and tourism. The local people are receiving a little amount of money enabling them to pay for only RDC levy which is \$US20-00/yr per household as has been revealed in an interview with the RDC CAMPFIRE manager. Murombedzi (2003) has noted that there is financial benefit from CAMPFIRE mainly through Safari hunting and eco-tourism as in the case of Mahenye CAMPFIRE. Findings from the field are consistent with the work of Murphree (1993) who pointed out that there is an inevitable drop of wildlife revenues to the local people. As if that is not enough, Bond (2001) notes that traditional leadership at times misuse the benefits with local people ending up as passive recipients of revenue derived from wildlife which they now view as belonging to the RDC or government (Murombedzi, 1996). This has been very true in the case of Mahenye CAMPFIRE.

The issue of income generated from CAMPFIRE is more or less similar to the case of employment. An employment opportunity for the local people is there but very little.

Scholars like Murombedzi (2004) have noted that professional and managerial posts are occupied by outsiders in many cases. In the case of Mahenye the overall manager of Chilo lodge is an outsider, a white person on top of that. For the Safari operator, a professional skinner is hired from outside and no attempts have been made to train local people for such professional posts. As has been revealed earlier on, service providers are there to make profit hence capitalise on a small number of employees.

Agricultural production has benefited very little from CAMPFIRE; instead more often it is negatively affected. The local people always blame their food insecurity on CAMPFIRE. Nabane *et. al.*, (1996) noted that some communities receive agricultural inputs and food handouts from income generated from CAMPFIRE. However this has not been the case in Mahenye, when they receive food handouts it is normally from NGOs and at many times they target certain groups like orphans for instance.

As such, given the findings which show a potential of benefits that can be derived from the CAMPFIRE and yet only a little is received by the producer community and cannot even cover the costs incurred, one can accept the hypothesis.

## **5.2 Recommendations**

Based on the findings of each and every objective of the study, the following recommendations are made:

### **5.2.1 Objective 1**

Findings have shown that CAMPFIRE provides revenue but is little and declining at local level mainly due to lack of accountability of the management system. I recommend increased role of people in decision making. Also every decision reached should be made public.

Furthermore, the project committee should be separate from local leadership so as to avoid abuse of powers. Traditional leadership must not receive extra financial benefit from

CAMPFIRE apart from that received at communal level by everyone. Traditional leadership should be there to be consulted when need arises and informed on the activities and progress of the project.

### **5.2.2 Objective 2**

CAMPFIRE provides employment to a small number of local people; as such people end up poaching in order to meet their daily basics. New projects should be created to provide income for the people, such as small scale livestock keeping, bee keeping, gardening projects and organised handcraft making groups using available resources and sell to tourists or other available markets. Also, local people should be trained on professional tasks and certificates should be awarded where necessary, so that even in case the service providers leave the area they are able to continue managing projects themselves.

### **5.2.3 Objective 3**

Rural development projects should support and complement agricultural production which is the main source of livelihood of every rural setting. Micro-Irrigation schemes should be set up in the area to supplement rain fed agricultural production. Also a special pocket should be allocated for agricultural activities from revenue generated and should be able to cover costs incurred through Natural Resources Management.

## Reference list

African Resources Trust (ART), (2006). *The Mahenye Community Conservation Initiatives: Best practice case study in community conservation.*

Bond, I. (2001). CAMPFIRE and the Incentives for Institutional Change. In Hulme D, Murphree M. W. (Eds), *African Wildlife and Livelihoods. The promise and Performance Community Conservation of.* James Carrey, Oxford, pp 227-243.

Brandon, K. & Wells, M. (1992). *People and Parks: Linking Protected Areas with Local communities*, World Bank: Washington DC.

Child, B. (1996). *The practice and Principles of community-based wildlife management in Zimbabwe.* The CAMPFIRE programme Biodiversity and Conservation, 5 (3):369-96.

Child, B. (1993). Zimbabwe's CAMPFIRE Programme: Using the High Value of Wildlife Recreation to Revolutionise Natural Resources Management in Communal Areas, *Commonwealth Forestry Review*, 72(4): 284-296.

Child, B., Jones B., Mazambani, D. Mlalazi, A and Mounuddin, H. (2003). *Final evaluation report: Zimbabwe Natural Resources Management Programme- USAID/ Zimbabwe Strategic Objective. No. 1. CAMPFIRE Communal Areas Management for Indigenous Resources.* Unpublished Report, USAID, Harare

Child, G.F.T. (1995). *Wildlife and People: The Zimbabwean Success.* Wisdom Foundation, New York.

Cumming D.H.M. (1990b) Wildlife Products and the Market Place: A View from Southern Africa. Multispecies Animal Production Systems Project, Project Paper No. 12, World Wildlife Fund for Nature, Harare.

Dismuir, A. & William, L. (1992). *How to do Social Research; Sociology in action series.* Collins Education: London.

Dzingirai, V. (2003). 'Accumulation and Response: A Study of Peasant Reaction of the State Exploration'. M. Phil Thesis. Dept of Sociology, University of Zimbabwe.

Dzingirai, V. (1998). *Migration, Local Politics & CAMPFIRE.* CASS: University of Zimbabwe, Harare, Zimbabwe.

Gibson, C. C., & Marks, S. A. (1995). *Transforming Rural Hunters into Conservationists: An Assessment of Community-based Wildlife Management Programmes in Africa.* *World Development*, 23(6), 941-957.

Hasler, R. (1991). *The political and Socio-Economic Dynamics of Natural Resources*. CASS: University of Zimbabwe.

Jens, A. A. & Cumming, H. M. (2013). *Defining the Edge: Boundary formation & TFCAs in Southern Africa*. *TRANSFRONTIER CONSERVATION AREAS: People living on the edge*. (ed) Jens, A A., Garine-Wichtitsky, M. , Cumming, D. H . M. , Dzingirai, V. & Giller, K. E. Routledge. Taylor & Francis Group, London New York.

Jones, B. T. (2004). *Commons Southern Africa. CBNRM, Poverty Reduction and Sustainable Livelihood: Developing Criteria for Evaluating the Contribution of CBNRM to Poverty Reduction and Alleviation in Southern Africa*. CASS: University of Zimbabwe

Jones, B. T. & Murphree, M. (2001). The Evolution of Policy on Community Conservation. In Hulme, M. Murphree (Eds.), *African Wildlife & Livelihoods: The Promise & Performance of Community Conservation*. James Currey Ltd: Oxford.

Kimel, M. D. (2003). *Focus Group Methodology*. The FDA Drug Safety & Risk Management Advisory Committee Meeting Presentation. Gaithersburg, Maryland.

Logan, I. B. & Molesey, W. G. (2001). *The Political Ecology of Poverty Alleviation in Zimbabwe's Communal Areas Management Programme for Indigenous Resources (CAMPFIRE)*. Department of Geography, University of Georgia: Athens.

Madzudzo, E. (1995). A General Overview of CAMPFIRE: Success and Constraints. In. *Successful Natural Resource Management in Southern Africa*. Centre for Development Cooperation Services, VrijeUniversiteit: Amsterdam

Madzudzo, E. (1996). *Producer Communities in a Community Based Wildlife Management Programme. A case study of Bulilimangwe & Tsholotsho district*. Centre for Applied Social Studies: University of Zimbabwe, Harare.

Matema, C. (2010). CAMPFIRE: Latest Developments in Access to Wildlife in Communal Areas of Zimbabwe Report. CASS: U.Z (Unpublished Report).

Matke, G. E. & Nabane, N. (1996). Outcomes of Community controlled Wildlife Utilization Program in a Zambezi Valley Community. *Human Ecology*, 24 (1) 65-851.

Mazambani, D. & Dembetembe, P. (2010). *Community Based Natural Resources Management. Stocktaking assessment*. Zimbabwe Profile. USAID.

Moore, D. (2005). *Suffering for Land*. Weaver Press: New York.

Murombedzi, J. C. (1991). 'Decentralising Common Property Resource Management: A Case Study of Nyaminyami District of Zimbabwe, Wildlife Management Programme'. (IIED Paper No. 30)

Murombedzi, J. C. (1996). *PAYING FOR THE BUFFALO BILL. The Impact and Implication of External Aid on the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE)*. CASS; University of Zimbabwe, Harare, Zimbabwe.

Murombedzi, J. C. (1997). *Paying the Buffalo Bill: The Impact and Implications of External Aid on the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE)*. August. University of Zimbabwe, CASS NRM Working Paper No. 93/97. Harare

Murombedzi, J. C. (2001). *Committees, rights, costs and benefits. Natural Resource Stewardship and Community Benefits in Zimbabwe's CAMPFIRE Programme, in African wildlife and livelihoods: The promise and performance of community conservation*, edited by Hulme D, & Murphree M. Oxford: James Currey.

Murombedzi, J. C. (2003). *Revisiting the principle of CBNRM in Southern Africa*, in *Proceedings of the Regional Conference in Southern Africa: Sharing Best Practices for the Future*, Windhoek, March 3-7, 2003. Namibia Association of CBNRM Support Organisation (NASCO: Windhoek.

Murphree, M. W. (1993). *Communal Wildlife Resources and Rural District Council Revenues*. CASS: University of Zimbabwe, Harare, Zimbabwe.

Murphree, M. W. (1997). *Congruent Objectives, Competing Interest and Strategic Compromise, Concept and Processes in the Evolution of Zimbabwe's CAMPFIRE Programme. Community Conservation in Africa*. Working Paper , Vol. 2. Institute for Development Policy and Management (IDPM), University of Manchester: Manchester, U.K.

Murphree, M.W. (2000). "The Lesson from Mahenye". In: *Endangered species, threatened convention*, Hutton, J. and Dickson, B. (ed.). Earthscan Publications, UK.



Murphree, M. W. 2004. *Communal Approaches to Natural Resource Management in Africa: From whence and to where?* Keynot address to the 2004. Breslauner Graduate Student Symposium, Universty of California, Berverly.

Nabane, N , Dzingirai, V. , Madzudzo, E (1996). *Membership in Common Property Regimes. A case of Guruve, Binga, Tsholotsho and Bulilimangwe CAMPFIRE Programmes*. CASS: University of Zimbabwe, Harare, Zimbabwe.

Oppenheim, A. N, (1992). *Questionnaire design, interviewing and attitude measurement (2<sup>nd</sup> edition)*. St Martin Press: London.

Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press: New York.

Parker, I. S. C. & Graham A. D. (1989). *Elephants Decline: Downwards Trends in African Elephant Distribution and Numbers (part 11)*. International Journal of Environmental Studies, Vol. 35, issue 1-2.

Peluso, N. L. (1993). Coercing Conservation- the Politics of State Resource Control. *Global Environmental Change- Human and Policy Dimensions* 3(2): 199-217.

Peterson, J. H. (1991). *A Proto-CAMPFIRE Initiative in Mahenye Ward, Chipinge District: Development of a Wildlife Utilisation Programme in Response to Community Needs*. CASS: University of Zimbabwe.

Tailor R., (2009). *Community Based Natural Resource Management in Zimbabwe: The Experience of CAMPFIRE, Biodiversity and Conservation* 18no. 10 pp 2563-2583

Wells, M., Brandon, K. & Hannah, L. (1992). *People and Parks: Linking Protected Area Management with communities*. World Bank, Washington, DC.

Western, D & Wright, R. M. (1994). Background to Community-based Conservation, in Western D, Wright R. M and Strum S. C (eds). *Natural Connections: Perspectives in Community-based Conservation*. Island Press, Washingtín D. C, U.S.A., pp1-14.

## APPENDICES

### Appendix 1: Key Informant Interviews and Focus Group Discussions Question Guide

**1. On investigating income received by the local people.**

1. What are the **sources of income** derived from the CAMPFIRE project?
2. **Before** the CAMPFIRE **what were the sources** of income?
3. How are the beneficiaries chosen?
4. When the programme started **was the income able to improve local people's livelihoods?**
5. What were the **indicators?**
6. Are the beneficiaries from the project **still receiving dividends?**
7. If yes, are there any **changes?** / If No, what are the **causes?**
8. Are there **any changes** in terms of the **sources of income?**
9. If yes, what are the **changes** and **causes?**
10. Are there any challenges in distribution of dividends to the local people?
11. If any, how do you resolve them?

**2. On examining employment opportunities offered by the CAMPFIRE.**

1. What are the employment opportunities derived from the CAMPFIRE for the local people?
2. Do you employ the local people?
3. Is there a policy that directs a certain percentages of your employees to be recruited from the local community?
4. What is the nature of the jobs they partake?

**3. On investigating the contributions made by CAMPFIRE to agriculture**

1. What are the positive contributions made by CAMPFIRE to Agriculture?
2. What are the opportunities brought by CAMPFIRE to agriculture?
3. What are the challenges of CAMPFIRE project in terms of food security?

## Appendix 2: Key informant interview schedule

Location	Key informant designation	Interview date
Mahenye primary school	Campfire committee chair person	16/08/12
Mahenye Campfire offices	Zanu PF councilor	16/08/12
Mahenye Campfire offices	Campfire clerk	16/08/12
Mahenye Campfire offices	Agritex officer	16/08/2012
Mahenye Campfire offices	Chief Mahenye	16/08/12
At his home in Mahenye	Village head (Palamuke)	30/08/12
At his home in Mahenye	Village head (Chauke)	30/08/12
At his home in Mahenye	MDC councillor	29/08/12
Mahenye shopping centre	Campfire Committee vice secretary	29/08/12
Mahenye Shopping Centre	Local community member 1	31/08/12
Chilo safari lodge	Chilo lodge stores manager	31/08/12
Mahenye Campfire offices	Campfire resource monitor	31/08/12
Mahenye Campfire Offices	Chilo lodge security guard	31/09/12
Chipinge RDC offices	Local community member 2	31/09/12
Chipinge government complex	Chipinge district Agritex extension supervisor	05/09/12
Chipinge RDC offices	RDC campfire manager	05/09/12

### **Appendix 3: Questionnaire on the examination of the contributions made by CAMPFIRE to Agriculture**

**Salutation:** My name is Evas Zunza. I am a master's student in Social Ecology at the Centre for Applied Social Sciences (CASS), University of Zimbabwe. I am carrying out a research on the Local Level Benefits of CAMPFIRE projects. My goal is to provide lessons learned from Communal Based Natural Resources Management (CBNRM) projects and see how they can inform future incentive-based models in CBNRM. I thank you for your cooperation. For further information please contact Evas Zunza on 0772 739 023 or [zunzaevas@gmail.com](mailto:zunzaevas@gmail.com)

#### Section A: study site

A1	Province	Manicaland
A2	District	Chipinge
A3	Chief	Mahenye
A4	Village head	
A5	Ward	

#### Section B: Socio-economic characteristics of respondent

	Question	Response
B1	Name of respondent (optional)	
B2	Sex of respondent	1. Male 2. Female
B3	Age of respondent	1. 20-30 2. 31-40 3. 41-50 4. 50+
B4	Marital status of respondent	1. Single (never married) 2. Married 3. Divorced 4. widowed
B5	What is your level of education/training	1. never been to school 2. primary 3. secondary 4. college 5. university

### **Section C: livelihoods**

	Question	Response	
C1	Do you practice farming?	0. Yes 1. No	
C2	If yes, is it for household subsistence/ or commercial	0. subsistence 1. commercial	
C3	What livestock do you own/keep and quantity	<u>Livestock</u> 1. Cows ..... 2. Goats ..... 3. Donkeys ..... 4. Chickens ..... and/ducks ..... 5. Others: ..... specify ..... ..... ..... ..... .....	<u>Quantity</u> ..... ..... ..... ..... ..... ..... ..... ..... .....
C4	What farming implements/tools do you own?		
C5	Have you ever hired farming equipment/tool from CAMPFIRE project?	0. Yes 1. No	
C6	If yes, what is the equipment/tool and for what function	<u>Equipment</u> ..... ..... .....	<u>function/use</u> ..... ..... .....
C7	What are other off-farm income generating activities do you practice?	<u>Activity</u> ..... ..... ..... .....	<u>frequency</u> ..... ..... ..... .....

### **Section D: Agricultural activities**

	question	Response
D1	What institutions govern your agricultural activities	0. AGRITEX 1. EMA 2. Other: specify.....

CAMPFIRE is said to be capable of bringing several benefits. Using the following categories help us with the benefits based on your experience.

### **D 1: Problem of animal control**

D1:1	Expected benefits	Actual benefits <u>1982-1999</u> <u>2000-2012</u>		Indicators of actual benefits

	Question	Response
D1:2	Do you have any livestock which have been attacked by wild animals?	0. Yes 1. No
D1:3	If yes, was there any compensation?	0. Yes 1. No

### **D2: Disease control**

	QUESTION	RESPONSE
D2:1	Are there any diseases from wild animals that infect your livestock?	0. Yes 1. No
D2:2	If yes, which livestock are more affected, by which wild animals and what is the name of the disease?	
D3:3	Has the CAMPFIRE project made efforts to control the spread of the diseases?	0. Yes 1. 1. No
D3:4	If so, what has been done?	

### **D4: crop cultivation**

	question	Response
D4:1	What crops do you grow? How big is the land you cultivate? How much do you produce?	..... ..... ..... ..... ..... ..... ..... ..... ..... .....
D4:2	Have your crops been destroyed by wildlife?	0. Yes 1. No



		..... ..... Livestock production ..... ..... ..... ..... ..... ..... .....												
D4:10	Are there any organisations that support your agricultural activities/provide food hand outs?	0. Yes 1. No												
D4:11	If yes, which organisations and what is the nature of their support?	<table border="1"> <thead> <tr> <th>Organisation</th> <th>Nature of support</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> </tbody> </table>	Organisation	Nature of support	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
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D4:12	Is climate change affecting your agricultural activities?	0. Yes 1. No												
D4:13	If yes, in what ways?	..... ..... ..... ..... ..... ..... ..... ..... .....												
D4:14	What are the major challenges you are facing in farming?	1..... ..... ..... 2..... ..... ..... 3..... ..... ..... ..... 4..... ..... ..... ..... 5..... ..... .....												



		.....
D4:15	What do you think can be done to reduce the challenges?	1..... ..... ..... ..... 2..... ..... ..... ..... 3..... ..... ..... ..... 4..... ..... ..... ..... 5..... ..... ..... .....
D4:16	To what extent would you say CAMPFIRE contributed to your agricultural activities?	1. Lesser extent 2. average 3. greater extent

**THANK YOU FOR YOUR COOPERATION**