

# ***THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES***

## **An Investigation of the Opportunities for Diversification and Development of Rural Livelihoods Provided by Conservation Management in Zimbabwe: The Case of Communities Adjacent to Hwange National Park, Victoria Falls and the Save Valley Conservancies in Zimbabwe**

**Dr. Walter Mzembi**

Minister, Department of Tourism and Hospitality Industry, Zimbabwe

### **Abstract:**

*This objective of this study has been to determine how the communities living around conservancies in the trans-frontier conservation are benefitting from the community based conservations efforts through CAMPFIRE. This is part of a long and intricate discourse which links natural resource management to sustainable rural livelihoods through tourism. This means that the research will link management of natural resources to use of resources mainly wildlife with a view to understand how the management processes can secure the physical, economic and social efficiency, health and well-being of rural communities, particularly in communities around Hwange National Park, Victoria Falls and communities found around the Save Valley Conservancies in Zimbabwe.*

**Keywords:** *Rural livelihoods, natural resource management, sustainability, tourism, local participation and community benefits*

### **1. Introduction and Background of the Study**

Conservation management in Zimbabwe seeks to provide sustainable biodiversity preservation, and therefore provide economic returns to the government through tourism and hunting concession through trophies. In the early 1980s, conservation management, and ideally so, its governance, pursued Community Based Conservation (CBC) in order for to influence land use behaviours that are wildlife compatible (Hackel 1999, Hulme and Murphree 2001, Metcalfe 2003, Murphree 1993, Warner 2000, Western et al.1994).

Elsewhere in the Southern African region, we have cross examples in the form of the Ololosokwan village, next to Serengeti National Park in Tanzania, which earned approximately US\$ 65,000 per year from photographic tourism operations on village land (Nelson 2004, Nelson and Ole Makko 2005). Experiences with Zimbabwe's influential Communal Areas Management for Indigenous Resources (CAMPFIRE) program (Alexander and MacGregor 2000, Bond 2001, Jones and Murphree 2004, Metcalfe 1994, Murombedzi 1991, 1999, 2001, Patel 1998), arguably provided a model for CBC in Africa and beyond.

International conservation Non-Governmental Organisations, donor driven conservation management, biodiversity governance, and poverty alleviation interventions in Zimbabwe, are premised on the hypothesis that if the returns to rural livelihood practices can be enhanced along with natural resource revenues, then the incentives to engage in non-wildlife practices and conversions of conservation areas and ecosystems, would be significantly reduced.

#### *1.1. The Study Areas*

Below is a profile of the various communities that are living close to conservancies and that have been selected for the purpose of this research. Chiredzi households were spread out in the green shaded study area on the site map below.

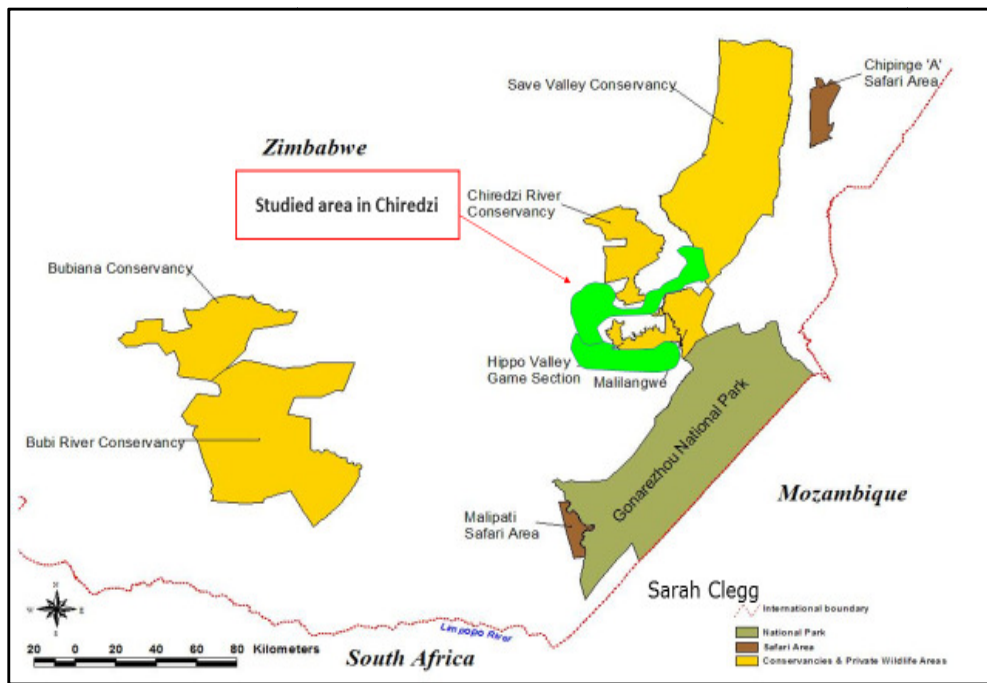


Figure 1: Chiredzi Study Area

Some of the interesting ecological characteristic of Chiredzi community is that most households are near or adjacent to conservation area such as Gonarezhou National Park, Save Valley Conservancy and indeed located near wildlife-dominated areas as economic activity. Largely, Chiredzi is in ecological region 5, which in terms of agro-classification in Zimbabwe are characterised by low rainfall, high temperatures, sand soils, miombo vegetation and savanna grasslands that are most suitable for wildlife production and ranching as opposed to agriculture unless under irrigation.

1.2. The Victoria Falls Area

Victoria Falls is a World Heritage Site. Anthropological data show that this area was inhabited by the Tonga people as the indigenous people, who, well before David Livingstone arrived in the area and then claimed having discovered the Falls, already knew of this treasure of a Fall of a water curtain. Currently, the area is dominated by people of Ndebele origins due to migration to the area that took place over years.



Figure 2: Map of Victoria Falls

The Victoria Falls area is largely conservation area, especially on the Zimbabwean side where conservation zones span from State Nature Reserves managed by the Department of Zimbabwe Parks and Wildlife Management Authority, and include private nature reserves managed by various conservation and tourism operators in this area. Ecologically, Victoria Falls is in agro-ecological region 5, which has the same characteristics with Chiredzi in terms of temperature, vegetation, and savanna status. The only difference that Victoria Falls has with Chiredzi is that Victoria Falls is home to the world's largest waterfall known locally as Mosi Oa Tunya "The Smoke that Thunders."

### 1.3. Communities in Hwange

Hwange households were selected along the National Park boundaries as shown in purple colour on the map.

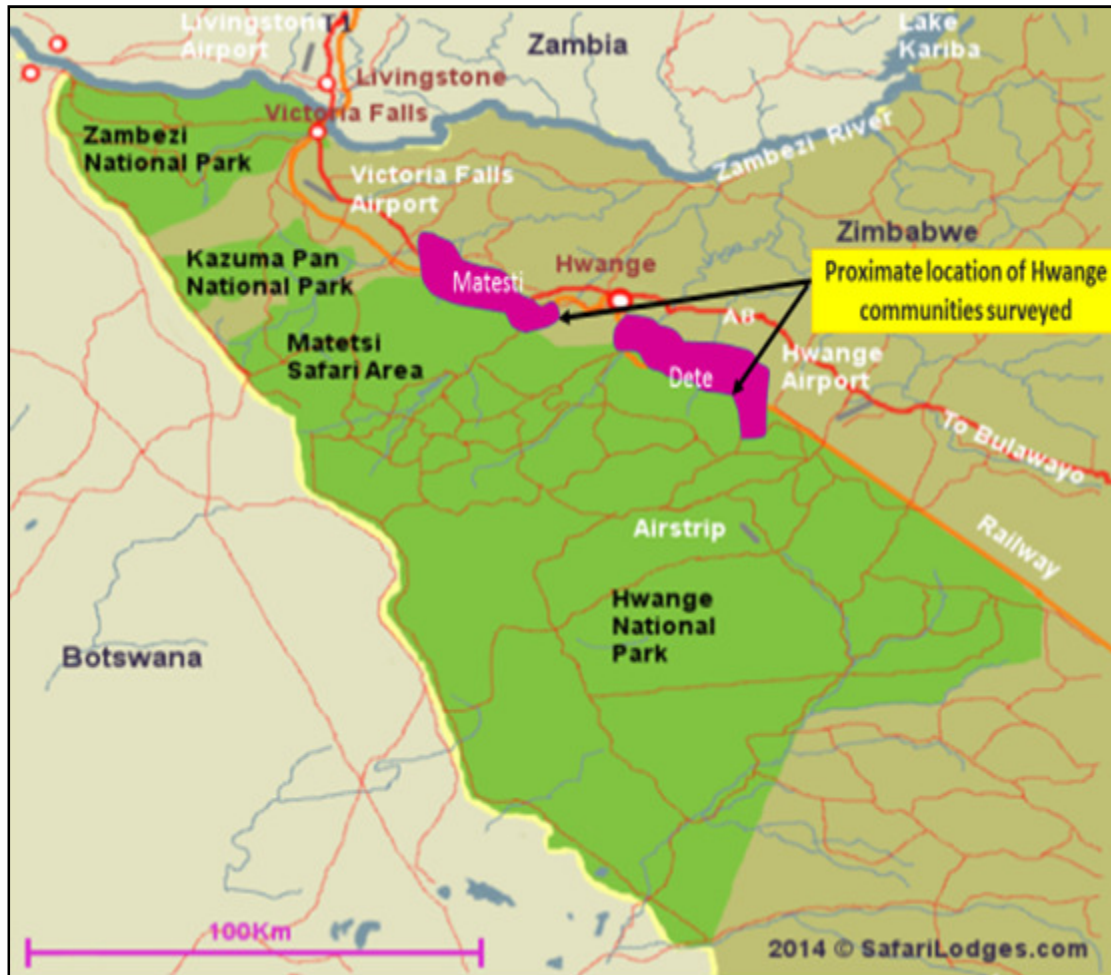


Figure 3: Map of Hwange National Park

There are several communities located along the main road to Victoria Falls that have a strong interaction with biodiversity in and around the park. Conflicts have arisen in the past over crop raiding and predation of livestock by wild animals that stray out of the Hwange National Park. As shown in the presentation of data gathered through participatory observations by the researcher, there are serious ecological damage on wildlife that have occurred in Hwange National Park.

In so far as ecological characteristics, Hwange is again in agro-ecological region 5. It is suitable for wildlife management and biodiversity conservation. Hwange, just like Victoria Falls is located in the Kavango Zambezi Transfrontier Conservation Area, which is the world's biggest wildlife enclave spanning across five countries that include Angola, Botswana, Namibia, Zambia and Zimbabwe. The Kavango Zambezi (KAZA) Transfrontier Conservation Area boast of having 52 tourism activities, 7 international airports and has the rarest world's wildlife species. The KAZA Map is shown below.

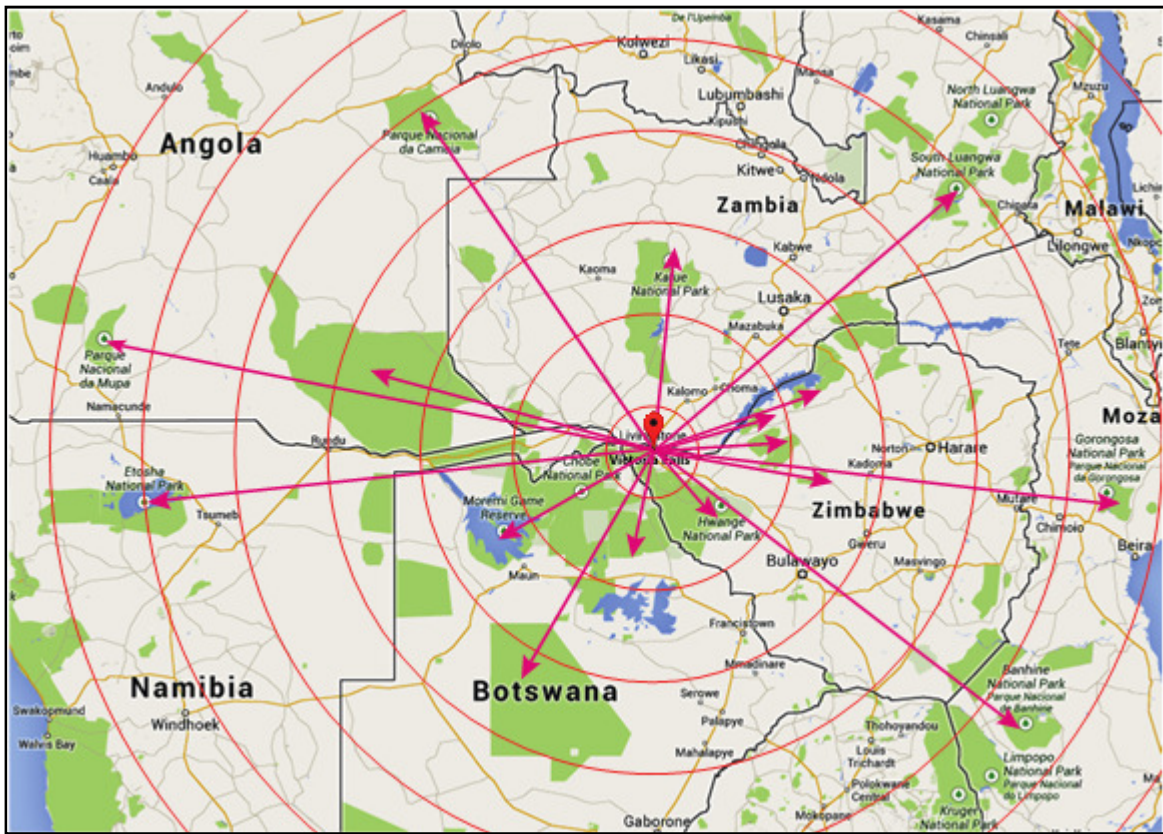


Figure 4: Map with concentric lines from Victoria Falls showing the KAZA TFCA

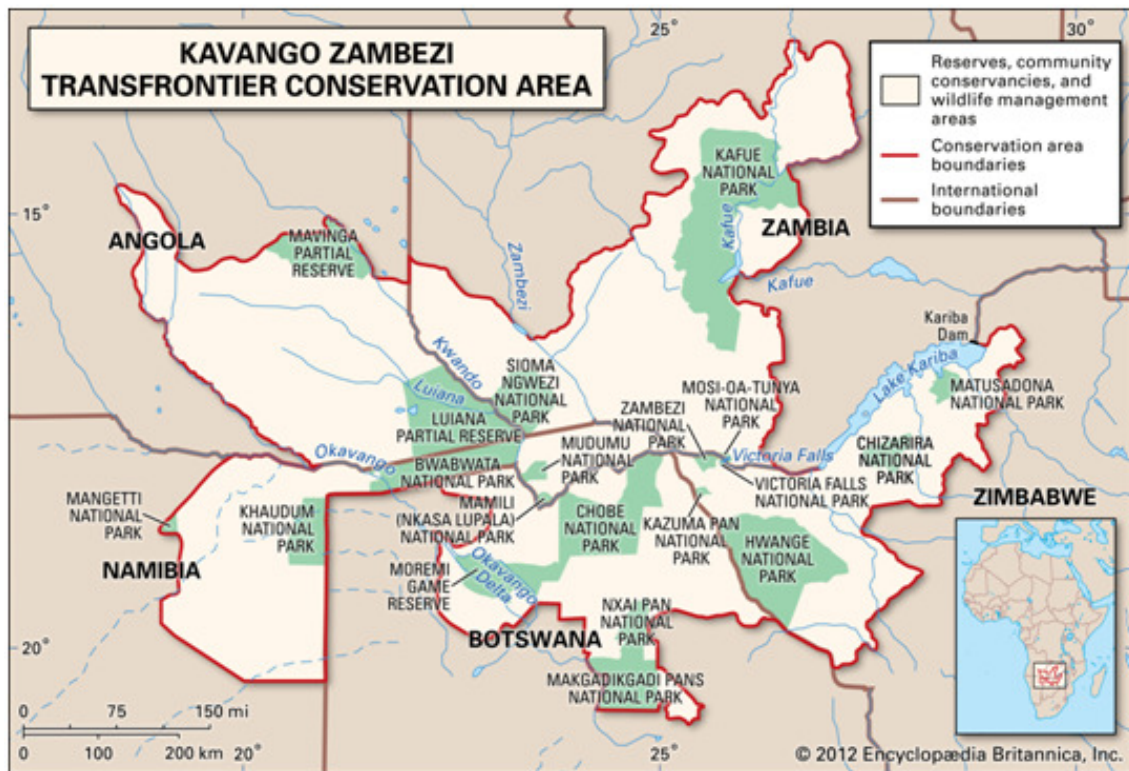


Figure 5: Kavango Zambezi Transfrontier Conservation Area (KAZA TFCA)

Most of the premium wildlife zones in Southern Africa are accessible within 2 hours flying time from Zimbabwe’s Victoria Falls area as shown by the map above and around the Victoria Falls are conservation hotspots that are of unparalleled biodiversity composition. The area also currently contains coordinated planning, investment incentives that enhance competitiveness in terms of tourism business.

## 2. Literature Review

Conservation management in the Zimbabwe context relates to clearly defined geographical space, recognised, dedicated and managed, through legal, policy programmatic and other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (Dudley 2008: 8). Historically, conservation management in Zimbabwe followed the exclusive mode of protected areas embedded in the Yellowstone model, after the world's first national park (Brockington et al. 2008a). The Yellowstone model is a Western cultural construct and embodies ideas of wilderness, untouched by human presence (Brown et al. 2005; Langton et al. 2005).

Accordingly, early thinking positioned the coexistence of humans in relation to conservation and protected areas as inherently oppositional (Colchester, 2004). Thus, conservation management in Zimbabwe assumed a historical problem of isolated bastions with human communities excluded. This became the genesis of separation between nature and culture, and the entire indigenous human existence (Adams & Hutton 2007; Kothari 2008; Plumwood 2003). It is imperative to highlight that in the case of Zimbabwe's conservation management, this historical separation intimated culturally that communities and local people believed themselves as out of place or an intruder in a particular setting that they used to enjoy its providence (Schroeder, 2007).

Historically, the establishment of conservation and protected areas occurred with little regard for indigenous residents or surrounding human populations, hence the whole process of natural resource conservation management became dichotomous. In that context, conservation management in Zimbabwe has largely long been utilised as a means of excluding local communities, criminalising traditional livelihood activities, abolishing property rights, and enforcing involuntary removals (Hoole 2008; Uddhammar 2006).

Economic, social or cultural implications were typically afforded scant consideration (Adams 2003; Fortwangler 2003; Turner 2004), resulting in profound equity and access complications (McShane 2003). These problems persist today in the form of continuing marginalisation and impoverishment of many communities adjacent to adjoining conservation areas in Zimbabwe, hence undermining collaborative spirit of the local people towards continued support to sustainable biodiversity management.

There is a recognised need to address such equity and access issues (Adams & Hutton 2007; Chape et al. 2008; Kothari 2008; Worboys et al. 2005). No longer is the issue to look at it as just a conservation management issue, but as an ethical or political matter. Hence, bringing in the aspect of governance perspectives, which is acceptable and find an integrative formula that does not exclude local people from participation in conservation management and governance (McLean & Straede 2003). Further, local support is essential to the long-term sustainability of protected areas (Borrini-Feyerabend et al. 2004; Michaelidou et al. 2002; Shadie & Epps 2008; Worboys et al. 2005).

Common-pool resources literature has provided significant evidence showing that under certain circumstances local stakeholders can do a better job at conservation management, governance, and avoiding overexploitation of their common-pool resource than their centralized counterparts (Ostrom 1990; Ostrom *et al.* 1996; National Research Council 2002).

## 3. Methodology

The study adopted a qualitative approach which incorporates descriptive statistics. Data was collected on a specified set of variables in the archives of the operations related to CAMPFIRE in terms of how much they contributed to direct revenues. Thus "Direct Revenues" is the main indicator which is qualified by different variables as indicated below.

### 3.1. Research Questions

1. What is the contribution of sports hunting to direct revenue?
2. What is the contribution of tourism to direct revenue?
3. What is the contribution of hides and ivory to direct revenue?
4. What is the contribution of other miscellaneous factors to direct revenue?
5. What have been the patterns over time?

### 3.2. Data Collection

Data was collected from various official documents which were found within the Campfire Related Operational Archives. The consistent set of data which was available related to contributions of:

- (i) sport hunting,
- (ii) tourism,
- (iii) hides and ivory and finally
- (iv) miscellaneous others.

The findings of the data analysis are presented in the section below.

### 3.3. Findings

The first set of data were descriptive statistics showcasing how the various levels of contributions that were made by the various components indicated above.

The documentary data was obtained from the authorities covering the period 1989-2001 when the Campfire programme was receiving lots of donor support. The results in the section below shows that sport-hunting was the major income earner, followed by tourism, hides and ivory and other wildlife activities as shown below:

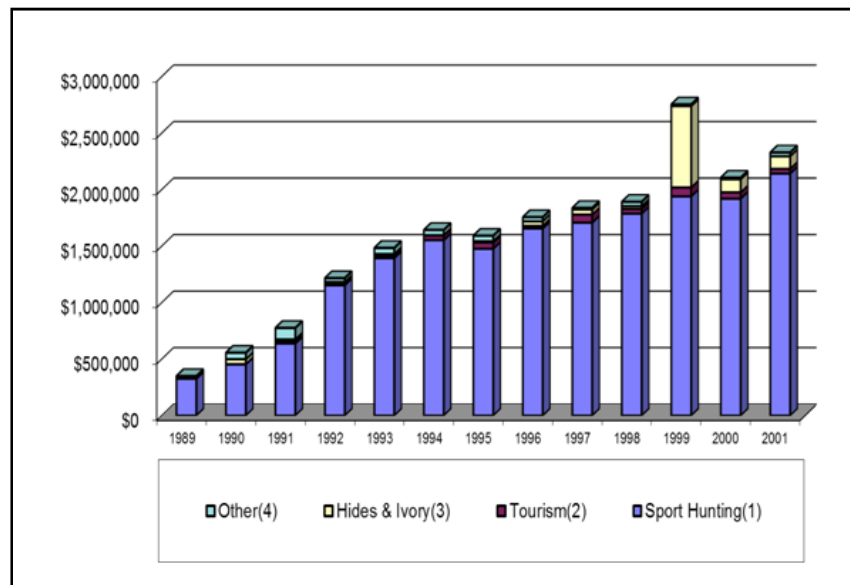


Figure 6: Wildlife revenue performance 1989-2001

The table below shows some interesting analysis of the wildlife economy by activity in the period 1989-2001, and the researcher also got figures for the year 2014 in the same table at the bottom for comparison purposes as follows:

Percentage Income by Year by Activity (1989-2001) when Campfire was robust and had semblance of community orientation					
Year	Sport Hunting (1)	Tourism (2)	Hides & Ivory (3)	Other (4)	Total
1989	93%	0%	2%	5%	100%
1990	81%	1%	8%	10%	100%
1991	82%	2%	3%	13%	100%
1992	95%	2%	1%	3%	100%
1993	94%	1%	1%	4%	100%
1994	95%	2%	0%	3%	100%
1995	93%	3%	1%	3%	100%
1996	94%	1%	2%	2%	100%
1997	93%	4%	2%	1%	100%
1998	95%	2%	1%	2%	100%
1999	70%	3%	26%	1%	100%
2000	91%	3%	6%	1%	100%
2001	92%	2%	5%	1%	100%
<b>Average Total 1989 - 2001</b>	<b>89.8%</b>	<b>2%</b>	<b>4.4%</b>	<b>3.7%</b>	<b>100%</b>
<b>2014 status (time of research)</b>	<b>35%</b>	<b>60</b>	<b>3</b>	<b>2</b>	<b>100%</b>
1. Sport Hunting - income earned from lease and trophy fees paid by safari operators.					
2. Tourism - income earned from the lease of wildlife areas for non-consumptive tourism.					
3. PAC hides & ivory - income from sale of animal products from PAC. Includes proceeds from ivory and hides auction.					
4. Other - income from the sale of live animals, collection of ostrich and crocodile eggs, etc.					
❖ The amounts stated above from the graph interpretation are in terms of the mean annual exchange rate based on the Reserve Bank of Zimbabwe calculation based on each year monthly exchange rates.					
❖ Currently, communities dispute that they are getting benefit from wildlife, let alone participating in decision-making processes of the resources they live in harmony with surrounding their communities.					
❖ Tourism is currently leading in terms of percentage performance in the wildlife sector accounting for 60%, while trophy, which used to be the highest performer is at 35%, meaning there has been a change to non-consumptive use through tourism. This confirms the sector's growth prospects that was put at 5.1% projection in 2015 (Mid Term Fiscal Policy statement).					

Table 1: Percentage Income of Campfire by Year by Activity (1989-2001)

It is imperative to note that tourism is gaining popularity as a major contributor to revenue generation. One of the interviewees mentioned that the tourism dollar first reaches the household before it finds its way to treasury, thus, its impact is felt largely at the lower levels of the society. According to the UNWTO (2015 Barometer Report), one in every eleven people are employed directly and indirectly in tourism related business.

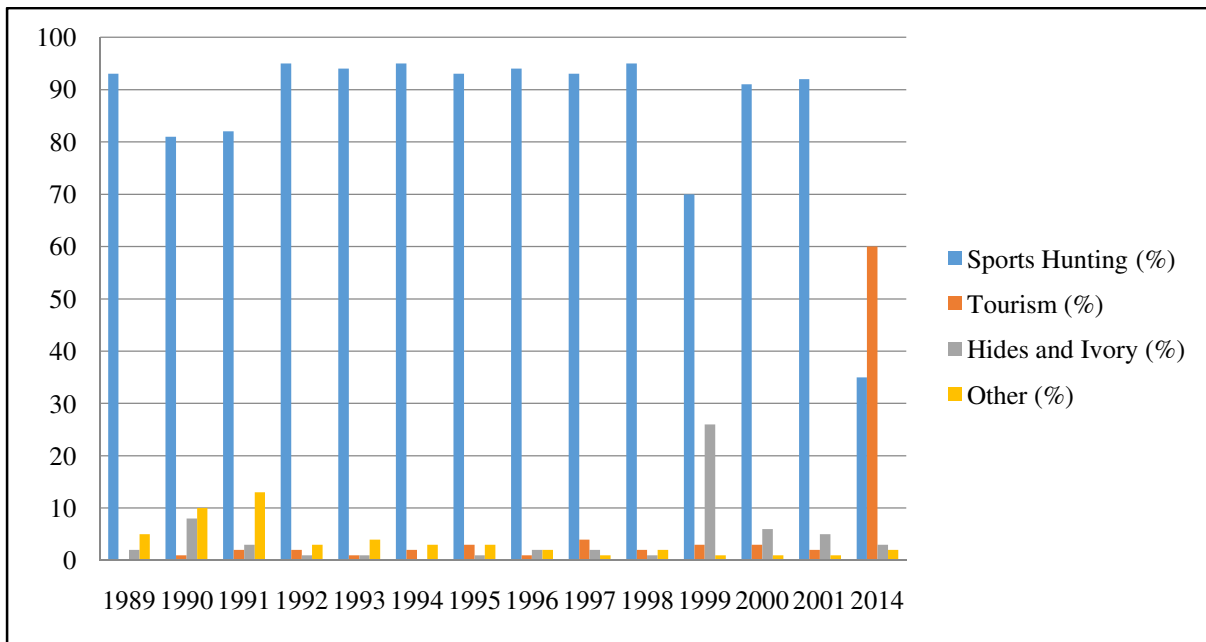


Figure 7: Contributions to Real Income across Years

This figure shows the contributions of the various components across time. Tourism has grown in terms of contributions to real income that was earned as a result of Campfire based data collected in the areas. An alternative illustration is shown below plotting the exact point when tourism outgrew the traditional dominance of sorts hunting.

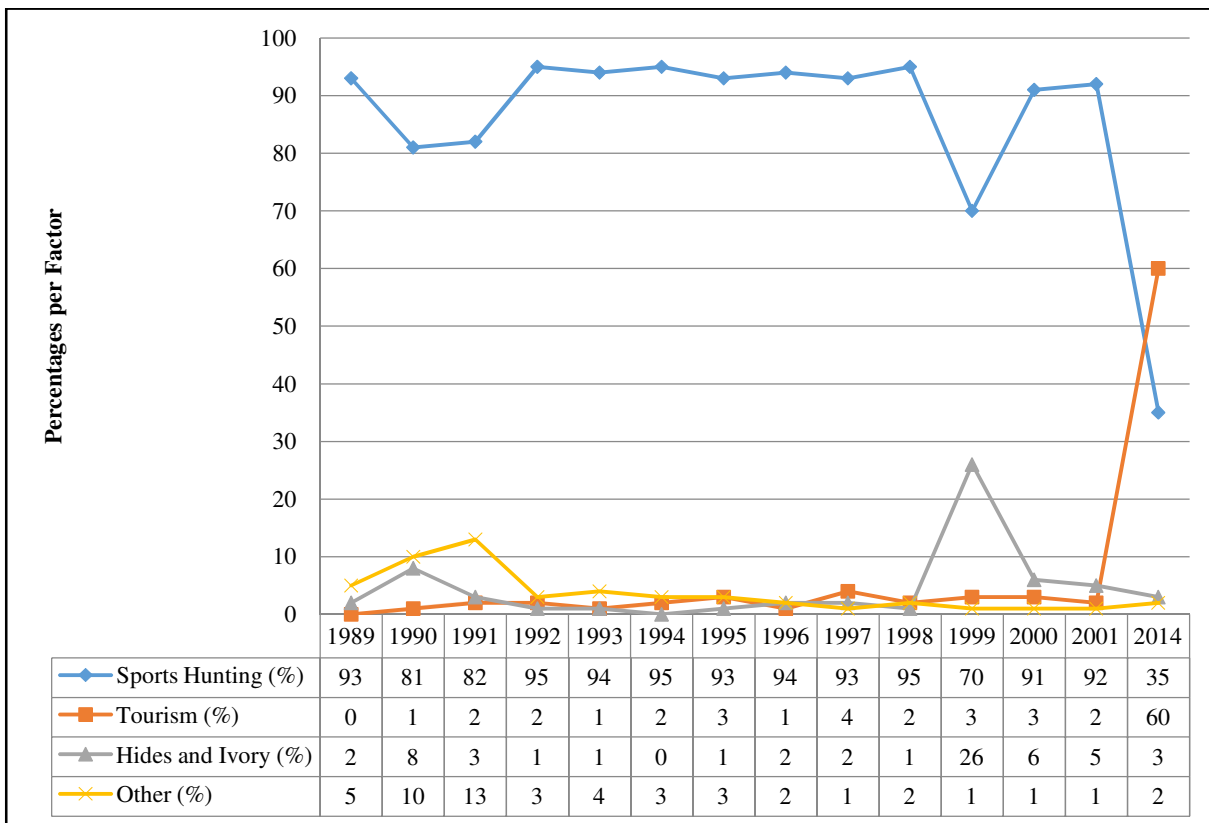


Figure 8: Distribution across Years

The illustration in the diagram above shows how tourism has become the major contributor to the revenues in the areas surrounding the conservation area. Sports hunting has traditionally been the leading earner but over time tourism has outperformed the activity,

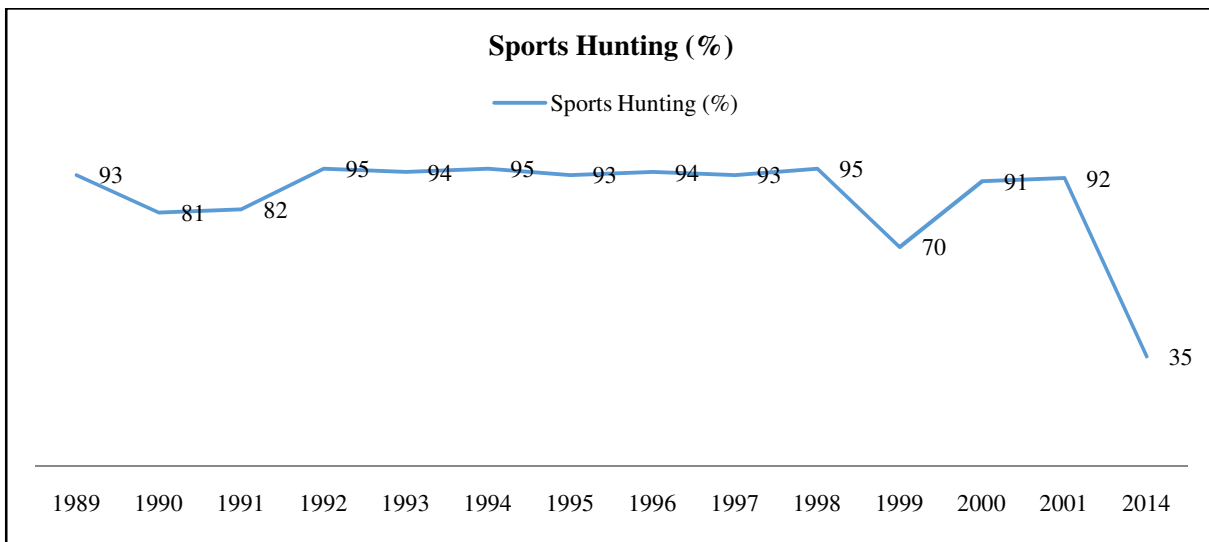


Figure 9

Earnings dropped between 1989 and 1990, then rose between 1991 and reaching a plateau lasting up to 1998. In 1999 earnings dropped but rose again in 2000 then fell dramatically between 2001 and 2014.

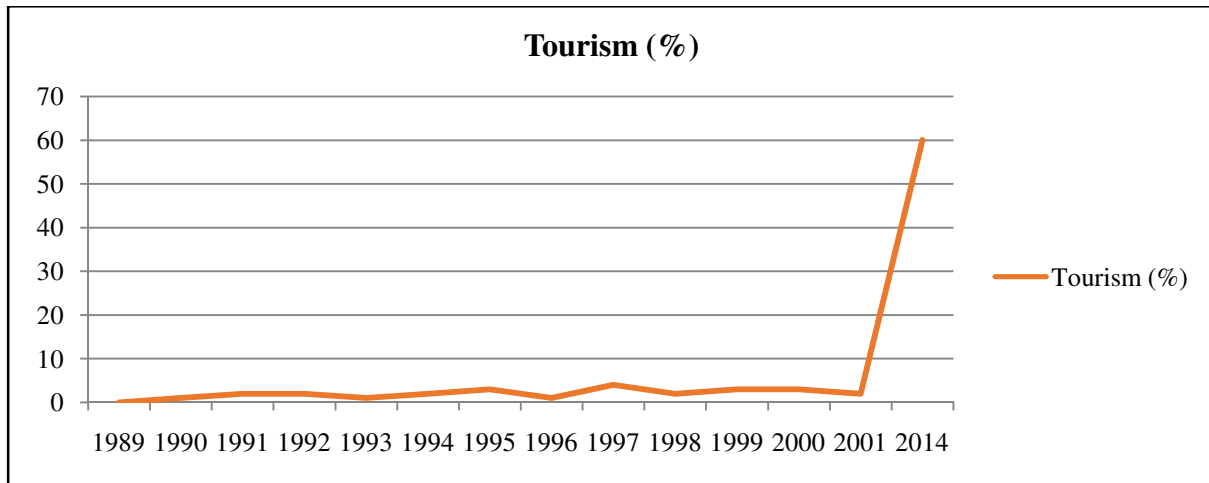


Figure 10

Tourism on the other hand had traditionally been on the lower side but rose sharply in 2001 and maintaining a huge peak in 2014. Comparing with the trends shown in sports hunting above, the two curves intersected as shown in the illustration below.

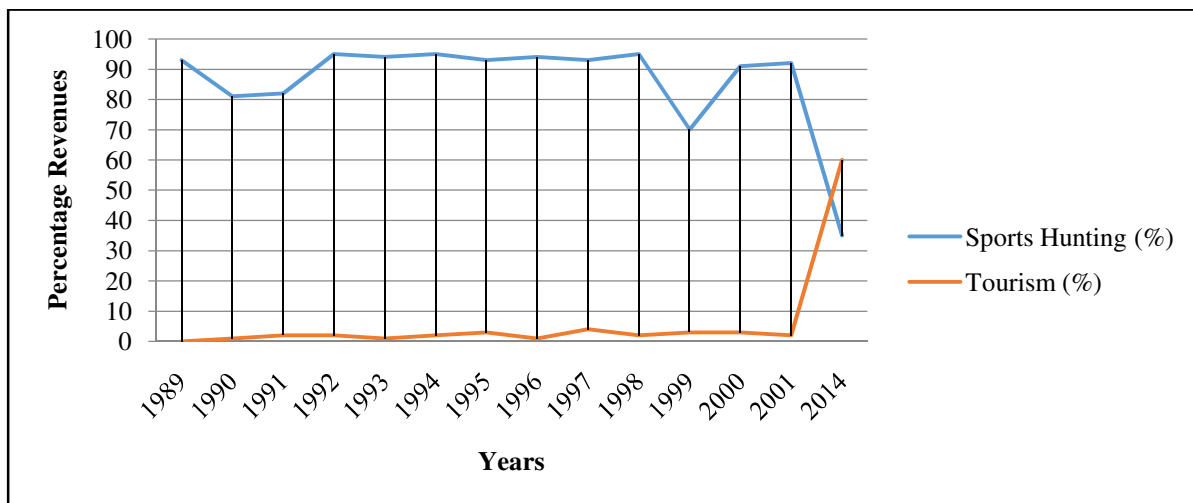


Figure 11: Comparative Revenue Trajectories: Sports Hunting and Tourism



Between 2001 and 2014, tourism eventually overtook sports hunting as shown in the crossing of the axes. In order thus it is important to have a clear understanding of the various factors that explain these changing dynamics in revenue contributions through tourism. Below is a discussion of the results shown above.

#### 4. Conclusion

As a result of this study, it has become apparent that in the history of CAMPFIRE, communities have traditionally benefitted in various ways. However, this study shows hard evidence of direct revenue which has been classified under sports hunting, tourism, hides and ivory and finally a category of miscellaneous other factors. Traditionally sports hunting has had the highest revenue earnings and over the last few years, tourism has become a bigger contributor. Thus it is both feasible and commendable to collect direct empirical data on the dynamics that are obtaining around the contributions of community based resource management to the welfare of the people. This is done in order to align their incentives correctly with a view to produce a sustainable pattern of growth and development in tourism.

#### 5. Discussion

The tourism industry has become a force to reckon with against all odds in an era where most sectors of the economy have not been doing well. However, in the context of evidence based practice, where executive decisions are driven by informed research, it is more important to delve deeper into the causal root of the emerging patterns. A structured process of continuously collecting data around the various components that shape the evolution of the industry should be instituted. This becomes vital business intelligence for the tourism sector.

It is equally important to investigate both the fall in sports hunting and the rise in tourism. As the causal dynamics become clearer, then it is possible to formulate and implement the most effective strategies for tourism development.

Another important issue which emerged was that although CAMPFIRE used to be a sources of Direct Revenue (US\$) (1989-2001) but not shared equally with communities, and even the tourism investments least incorporate communities. Income from hunting had increased dramatically up to 2001, but its distribution to communities was questioned by officials during field interviews. This has been a source of inherent conflict afflicting conservation. (Mzembi, 2015) Thus it is becoming apparent that the challenges that are found within the CAMPFIRE system are generating problems which are systematically affecting the possible benefits that communities should ideally derive from collective natural resources management.

#### 6. Recommendations

Scholars and practitioners alike should start to look much deeper into the operations of the various stakeholders who are operating in the area of tourism management.

The various stakeholders involved in tourism management should be organised into a consortium that plans collectively so that their individual level implementation is in synch with the efforts of other units.

Programmes like CAMPFIRE should be subjected to continuous monitoring and evaluation through collection and analysis of various forms of data.

Continuous and in depth ethnographic research should conducted in order to unravel the various factors that have resulted in the various forms patterns of contributions to revenues as shown above. For example, do other factors contribute less due to their lower market value of poor marketing?

The psychosocial construction of the image of Africa by tourists should be further understood and re-engineered into a competitive advantage in order to scientifically increase the numbers of tourists visiting the country.

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