

## “Bone of Contention?: Implications of Environmental Management on Conservation of Natural Resources in Zimbabwe

Munyaradzi A. Dzvimbo<sup>1</sup> \*, Freddy Magijani<sup>2</sup> and Funnycall Zimondi<sup>3</sup>  
<sup>1</sup>Department of Development Studies, Lupane State University, Zimbabwe  
<sup>2,3</sup>Ministry of Primary and Secondary Education, Zimbabwe

### ABSTRACT

*This paper examines the implications of environmental management on conservation of natural resources. It further explores environmental management and conservation programmes which have been implemented by many other countries of the Global South (GS) as a management approach that can bring positive outcomes in sustainable resource management. This paper further interrogates the management regime which represents a change from centralised methods which were previously applied. Zimbabwe has been a fore runner and a pioneer of this approach in the South. Many initiatives have been employed to bring resource governance to the citizenry. It is notable that there has been a remarkable success registered by two such initiatives, the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) and Environmental Management Authority (EMA). However, the same cannot be said of other conservation projects in rural and resettlement areas in Zimbabwe. Data was collected using qualitative methods, descriptive analysis involving focus group discussions with community members and in-depth interviews with community leaders and key stakeholders.*

**Keywords:** Conservation, Community, Governance, Management, Ownership,

### 1.Introduction

Countries in the Global South are promoting greater local participation in the use and maintenance of wildlife in order to improve local development and natural resource management. In Namibia, CBNRM on wildlife was pioneered in the mid-1980s as a response to poaching of elephants and black rhinos. A community game guard programme contributed to addressing this problem and this was supplemented by experiments in wildlife tourism to generate income for local people and provide an additional economic incentive for conservation (Wasonga et al, 2013). In Tanzania the timely intervention of CBNRM initiatives by the World Bank in Duru-Haitemba, Mgori and Shume-Magamba forests saved the diminishment in both quality and utility values of the forests (Wasonga et al, 2013). In Uganda, environmental and natural resource management was decentralized and has been the responsibility of local districts since 1996. This environmental management arrangement was part of a broader decentralization process and was intended to increase local ownership and improve environmental policy; however, its implementation has encountered several major challenges over the last decade (Osterveer and Bas Van Vliet, 2011). In response to the environmental crisis, Zimbabwe like many other countries all over the world has adopted mitigation and adaptation strategies, which are enshrined in their laws and policies. The main goal of these strategies according to Mapira (2014) is to reduce further damage to the environment and to achieve Sustainable Development (SD). However, several hurdles have emerged both at local and national levels.

There is quite a substantial loss of income to Zimbabwe’s economy as a result poor environmental management practices. Therefore in order to address these environmental problems, it will be important to reshape the mechanisms governing the management of natural resources in the country. Poverty in Zimbabwe is one of the root causes of environmental degradation. The poor in the country are not food secure. Mullein (2013) contends that the biological necessity of feeding ones family force the poor to make trade-offs between immediate food needs and long term environmental sustainability. It is also important to note that we may not entirely attribute the propensity to degrade the environment to the poor alone (Tsiko, 2010, Wasonga et al., 2013). It is also important to observe that there is a positive correlation between poverty and environmental degradation, but as alluded to earlier on it is mischief to attribute all environmental problems to the poor. There is little evidence to suggest that the poor pursue detrimental environmental practices when their food security is guaranteed and also when they have both security of tenure and property rights.

It has also been realized that dwindling smallholder farmlands, low agricultural productivity, and rising input prices have driven the rural poor into destitution. Government's initiatives for poverty alleviation will be critical to the management, conservation, protection and sustainable utilisation of the environment and its natural resources (Dzvimbo, Monga and Magijani, 2018). In 2003 the GoZ developed the National Environmental

Policy in line with National Policy Objectives which sought to “alleviate poverty and improve the quality of life of the people of Zimbabwe. However such strategies should be complemented by comprehensive environmental policies whose broad aim should be to maximize the benefits to be realised from the country's natural resources and at the same time ensuring that the ability of future generations to realize the same benefits is not compromised. This paper examines the implications of such environmental management strategies on conservation of natural resources in Zimbabwe. The paper further interrogates the management regime which represents a change from centralised methods to localised methods.

## **2.Literature Review**

### **2.1What is Environmental Management?**

What exactly is environmental management (EM)? Is it a single field or discipline? Is it a process? Is it an agreed approach? Is it efforts to identify and pursue goals? Perhaps a philosophy? Or, is it environmental and developmental problem solving? EM can refer to a goal or vision, to attempts to steer a process, to the application of a set of tools, to a philosophical exercise seeking to establish new perspectives towards the environment and human societies, and to much more besides” (Barrow 2005).

There are two seemingly opposing positions in relation to environmental management that is preservation and conservation. The latter entails management by natural growth without direct influence and interference by man. Whilst conservation advocates for maintaining stability and sustainability through environmental management practices that include harvesting for human use. Despite the fact that the positions are at odds with each other, they both remain environmental management tools and each is context specific. Preservation is applicable to preserving endangered species whilst on the other hand conservation is in the context of sustaining livelihoods, for example in terms of food security. Thus conservation relates to sustaining and protecting livelihoods through access to natural resources such as water, land, forests and wildlife. It’s important to note that most protected areas in the countryside are state protected areas and the state has very limited financial, human and other material resources necessary to manage the conservation these vast areas (Dzvimbo et al, 2018). It should be pointed out that in the process of managing resources formidable conflicting positions may arise and such situations call for a compromise.

### **2.2Environmental management in post independent Zimbabwe**

In response to the global environmental crisis the International Union for the Conservation of Nature and Natural Resources (IUCN), the United Nations Environment Programme (UNEP) and the World Wide Fund for Nature (WWF) formed the World Conservation Strategy in 1980 (Miller, 1994). The main goal according to Palmer (1998) was to preserve the biosphere and promote SD through resource conservation. In accordance with the provisions of the strategy Zimbabwe launched the National Conservation Strategy of 1987 which was the first post independency policy document to incorporate the concept of sustainability into development and environmental management. Zimbabwe also conforms to the requirements of Agenda 21 as approved at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, in June 1992. Agenda 21 is a detailed document comprising some 40 chapters, which cover various issues including: poverty, toxic waste, desertification, education and trade (Madden and McQuinn, 2014). In this regard, the country established government agencies, which became responsible for environmental issues, which were becoming more important concerns in national development projects. Institutions and organisations, which deal with environmental and developmental issues, have been also been created for example Environmental Management Authority (EMA) and the Worldwide Fund (WWF). However, in spite of these positive developments, serious gaps still remain in the implementation of Agenda 21.

Mapira and Mungwini (2005) opine that before the advent of the new millennium, Zimbabwe’s legislative framework on the environment was highly fragmented. Thus different ministries had their own laws on environmental issues. Ministries such as: Ministries of Lands, Water Development, Agriculture, Health and Child Welfare, Mines, Local Government, Rural and Urban Development, National Affairs, Transport, Energy, Employment Creation and Cooperatives (Murombedzi, 2003). This fragmented approach most of the times led to inter-ministerial conflicts as each ministry was governed by its own laws (Gandiwa, 2004). One ministry in particular the ministry of mines had powerful laws that took precedence over other laws. The parliament of Zimbabwe in 2002 then passed the Environmental Management Act (EMA), (Act NO, 13/2002) (Chapter 20:27) as an attempt to harmonize environmental management .The Act aims to “provide for the sustainable management of natural resources and protection of the environment; the prevention of pollution and environmental degradation” (GoZ, 2002).The Act also provides for the establishment of an Environmental

Management Agency and an Environmental Fund. The Act repeals the following former acts: Natural Resources Act (Chapter 20:13); The Atmospheric Pollution Prevention Act (Chapter 20:03); The Hazardous Substances and Article Act (Chapter 15:05); Noxious Weeds Act (Chapter 19:07). The new Act overrides other laws except *where it is expressly provided to the contrary*" (EMA, 2002:359). The Act states that every person has a right to: a clean environment that is not harmful to health, access to environmental information, protect the environment for the benefit of present and future generations, and participate in the implementation of laws, which are aimed at protecting the environment. The EMA act succeeded in streamlining the institutional and legislative framework of environmental management in the country. The fact that parliament enacted the EMA act does not necessarily reflect unrestricted, consensual and effective conservation in the country rather the country is a long way from realizing the intended goals. The fact is that there is still a lot degrading taking place for instance, every year thousands of hectare of vegetation are lost due to veldt fires.

Zimbabwe has also adapted a number of collaborative natural resource management (NRM) approaches that combine a number of tools to support local natural resource managers in self-governing and effective management and conservation of natural resources. Such approaches include Community-Based Natural Resource Management (CBNRM). Ribot (2013) defined CBNRM as a mechanism that addresses both environmental and social economic goals and, strives to balance the exploitation and conservation of valued ecosystem components through some degree of devolution of decision-making, power and authority over natural resources to communities and community-based organizations. This study looks at the well established CBNRM approach in Zimbabwe – Communal Areas Management Program for Indigenous Resources (CAMPFIRE) program. CAMPFIRE is a collaborative wildlife management strategy that give wildlife management responsibility to local government, and ultimately to local communities (Dzvimbo et al., 2018). The CAMPFIRE program is in line with EMA's strategic directions on wildlife that seek 'to promote the need for greater equity in sharing of opportunities to participate in, and benefit from, development of wildlife and fishing industries'.

The legal provisions of CAMPFIRE is such that Rural District Councils became the "Appropriate Authority" for the management of wildlife, the intention being that villages within the districts would become the real managers and beneficiaries of wildlife. Central government however take proactive roles in protecting political liberties by requiring these local governments to create mechanisms for citizen participation as a precondition for administrative decentralization and revenue sharing. CAMPFIRE has provided a substitute management model that emphasizes decentralized control of biodiversity conservation. Ribot (2002) contends that developing countries have introduced reforms to decentralize control over natural resource management. CAMPFIRE focuses on the development of local institutions for the management and conservation of communal wildlife resources, enabling communities and families to benefit economically from wildlife in their areas. The programme has demonstrated that economic returns from sustainable use of wildlife (largely through trophy hunting) exceeded the returns from marginal cultivation or cattle ranching (Golubiewski 2007). Consequently, the aim of this study, as mentioned earlier, is to examine the implications of such environmental management strategies on conservation of natural resources in Zimbabwe. The survey takes into account the experiences of other countries. Thus while giving global and regional perspectives of the environmental management, the countries also provide important lessons, which can be used as a framework for management and conservation of natural resources in Zimbabwe.

### **2.3 The Role of Government in Environmental Management and Conservation of Natural Resources**

The dominant role of central governments in management and conservation of natural resources began to be questioned in the 1970s and 80s (Sayer et al., 2004). Centralized conservation largely ignored local people's rights. By then it had become apparent that it was difficult to ensure the survival of natural resources in protected areas in the face of local land users' opposition and resentment. Sayer et al. (ibid) argued that the fact that valuable biodiversity existed in areas of extreme human poverty, and conservation programmes that were indifferent to, or even exacerbated, this poverty were morally indefensible and this fomented resentment. However the above contention leads to the realization those natural resources are the prime assets upon which the livelihoods of the rural poor depend on.

### **2.4 Regulatory Framework for Environmental Management and Conservation in Zimbabwe**

The transition from NRB to EMA in the early - 2000s presented a window of opportunity to address past regulatory shortfalls in the management and conservation of resources in Zimbabwe. The new act provides regulation regarding the requirements for environmental performance for existing and proposed projects as well as management and conservation of natural resources. EMA provides guidelines on what should be, for instance in an environmental impact statement as well as what needs to inform a social impact assessment. However the

bone of contention is that since the act came into force and these guidelines were released, there has been little substantive progress towards better clarity regarding the requirements for environmental management and performance. It can be argued that some of the guidelines are generally out-dated and are trailing behind developments both politically and economically. Compliance with the requirements of these guidelines does not always ensure the adequate protection of the environment. The most obvious examples of this in Zimbabwe are the fast track land reform and the current economic meltdown. These events have had negative impacts on environmental management and conservation of resources within the county.

### **3.Theoretical Framework**

The paper adopted the conflict resolution framework. The framework assist in analysing the complexity, scope, and depth of conflict in a given setting (Madden & McQuinn, 2014). The potential for conflict will always exist in any society with its members having different interests, socio-economic and political interests as well as needs. It is thus assumed that in a society, for different reasons, perceptions may be conceived about why communal natural resources are being harmed or relatively rundown. Such perceptions may lead to expressions of discontent against the State, other social groups and communities as well as Non-Government (NGO). If such discontent is not attended to in the early stages or if it is dealt with in an approach which aggravates the already widespread feeling of injustice, then a major conflict situation may arise. Conflict resolution is a general practice which is used to attend to issues of volatility and controversy with a view to reach an on the spot solution. Conflicts are an essential constituent of human relations, one need to learn to deal with them, to attend to them in a way that prevents escalation and devastation, and think up ingenious concepts to resolve them. For instance, a conflict could centre on a disagreement over preferred solutions to address cattle predation by endangered hyena predators (Murombedzi, 2003; Jani, 2016).

Literature posits that there are different stages of a conflict situation and each is caused by interventions not being taken in time or through inexpert handling of the situation. The dispute level can be viewed as the tangible expression of a conflict or as the pressing issue or problem at the centre of the conflict. Thus a dispute may be the surface expression of deeper levels of conflict. Management of resources should therefore not focus on the dispute level only, because conflicts may remain or even escalate after the hypothetical resolution of the conflict. In this regard, in Zimbabwe the underlying conflict in resource management can be referred to the history of unresolved disputes over what has happened in the colonial past. The past interactions between the communities and natural resource managers may have intensified or aggravated the present situation. Some communities and groups have a strong conviction that previous disputes as a result of poor governance were not satisfactorily resolved (Tsiko, 2010; Mullen, 2013). Coming from such a background the current conflicts in environmental management cannot be avoided. Underlying factors that are likely to intensify the conflict include factors such, as the poverty of communities concerned and the level of their dependence for livelihoods upon the resource concerned. In the context of CBNRM the conflict framework recognizes that communal management of natural resources is embedded in social and power dynamics of the community. Although the conflict management approach is appealing it is important to evaluate whether the principles really work in conflicts involving natural resources.

### **4.Methodology**

Paradigms are philosophical positions such as positivism, constructivism, realism, and pragmatism and interpretivist, each embodying very different ideas about reality and how we can gain knowledge out of it. The researchers favoured the interpretivist as a pure paradigm. However, Snape and Spencer (2003) argue that purism about the epistemological origins of a particular paradigm may undermine our ability to choose and implement the most appropriate research design for answering the research questions posed. Spencer (ibid) argues that if you use a mix of paradigms, you will need to carefully assess the compatibility of the modules that you borrow from. However despite criticism for purism the researchers adapted the interpretivist paradigm. Interpretive or constructivism, examines various truths based on the researcher's construction of reality. Mortens (2003) argue that the process of generating knowledge is not a preserved field of conventional scientists; instead all participants with an interest in the research and its findings are included. This augurs well with the interpretivist paradigm. The knowledge emerging from this study should thus be understood within these epistemic and philosophical positions. The researchers adapted the qualitative approach. Main qualitative methods included in-depth individual interviews as well as focus groups. The study employed the descriptive survey research design to examine the implications of environmental management on conservation of natural resources in Zimbabwe. The descriptive survey design does not involve manipulation of subjects but simply measures subjects as they are in order to generate generalizations and to add to existing knowledge (Cohen and Manion (1995:83; Mertens, 2003).

Qualitative data analysis was preceded by organizing, breaking down and moulding data into categories based on emerging themes (collation, description, documentation, categorization analysis and synthesis). Thus the study identified emergent categories and theories from the data rather than imposing a priori categories and ideas. Excerpts from interviews and open ended questions were recorded and reproduced to express participants' views, beliefs and opinions. This was respecting the uniqueness of each case as well as conducting cross-case analysis. In this study the method of sampling was purposive sampling. Key Informants and participants to Focused group discussions were selected purposively.

#### **4.1 Description of Study Area**

The study area is Masoka Ward 11 which is positioned in the Zambezi Valley, Dande Communal Lands which is approximately 20 kilometres south of the Dande Safari Area and 5 kilometres east of the Chewore Safari Area (Hurungwe District) on the Angwa River. The name Masoka derives from the name of the area's spirit medium NeMasoka and its use is common practice for the people of Dande. The ward is often referred to as Kanyurira, the headmen Kanyurira. The ward is under Chief Chisunga. The ward is part of Mbire Rural District Council (RDC). The Mbire RDC was granted Appropriate Authority (AA) status in 1988. The local community in the district has set aside about 400 square kilometres of land for both consumptive (sport hunting) and non-consumptive (eco-tourism) based on free ranging game from 1988 (Gandiwa, 2004; CAMPFIRE Association, 2007; Dzvimbo et al., 2018). At the commencement of the project in 1989, there were sixty households in Masoka ward. Today Masoka has more than four hundred and twenty seven households.

### **5. Results and Discussion**

#### **5.1 The Campfire Contention and Implication on Natural Resources Management**

The study noted that there is lack of amalgamation of locally accountable representation and discretionary powers given to local communities. This combined condition for success of CBNRM programs is hardly ever established. It was established that the programme in the study area operates through a chain of command of institutions based at the national, district, and ward and village level. At national level there are politicians, civil servants and technocrats. There is a CAMPFIRE Collaborative Group (CCG) which includes safari operators. At the district level actors include local RDC officials, ward councillors, district wildlife committees and extension officers. Ward and village level players include chiefs, councillors, Ward Development Committees (WADCOs) and Village Development Committees (VIDCOs) and members of the communities. It is evident from this hierarchy that authority for wildlife management still remains at the level of the Rural District Council an arm of central government instead of being transferred directly to communities (Mapira, 2014). Thus discretionary powers have not been fully devolved to the rightful people who co-exist with wildlife. The Mbire RDC manifests a propensity to retain authority as well as benefits, thus relegating to producer communities.

Mapira (2014) pointed out that lack of full devolution and continuing interference by RDCs has made it difficult for local communities to actively participate in CBNRM activities. Tsiko (2010) contends that as a result, poaching and exploitation of natural resources has resurfaced and is now widespread, as communities saw no benefit from engaging in CBNRM activities. To this end, government through RDCs has unwittingly abandoned the empowerment of communities that co-exist with animals. However, let us hasten to say decentralisation of management responsibilities from central government to local community level through Rural District Councils remains a better option. More so, councils should not fall into the trap of blaming the failure to completely decentralize to be the major cause for this failure of some CBNRM and at the same time we should also not be tempted to think that a centralized approach would perform better. The above contention is in sync with Ribot (2013) who disputed that when examined in detail these community-based and decentralized forms of local natural resource management often lack representation, downward accountability and/or sufficient powers. The view was also expressed in the World Bank (2000: 107) report which pointed out that this irregularity is apparent in projects and reforms related to the environment, where poorly structured decentralizations threaten environmental management and equity as well as decentralization and local democracy

It is thus important to also note that the current economic crisis is having detrimental effects on conservation in the area. It was also established that donors are pulling out of the Mbire CAMPFIRE area. The most significant bi-lateral donors into CAMPFIRE were the British (ODA), United States (AID), and Norway (NORAD) as well as Canada (CIDA). It is significant to mention that the state has very limited financial, human and other material resources necessary to manage and conserve these vast areas. The study has revealed that this model of conservation pursued in the area tend to exclude other potential partners, with the result being that the area is experiencing enormous management challenges. Respondents pointed out that the consequence of the incapacity

of the state and communities to manage the natural resources now call for public-private partnership of the management of these areas. It is however emerged from certain focus groups that within the district some of powerful political and entrepreneurial elites were corrupting the district Council. However, Murombedzi (2003) argue that the private sector should be invited and be given a clear agenda, thus care needs to be taken to ensure that conservation does not become subordinated to short term profit motives as conservation inexorably gets privatized.

CAMPFIRE as a CBNRM on wildlife in the area is based on the management conceptual framework that assume that local people will have little interest in conserving wildlife if it doesn't have economic value. The contention is that if wildlife is given economic value, local people will be engrossed in protecting wildlife. The framework also find expression in the EMA guiding principle 45 which states that 'the use of natural resources produces a market value that reflects their scarcity and unique qualities, thereby creating incentives to conserve these resources and use them sustainably' (National Environment Policy and Strategies, 2009). This assertion was refuted by most in the study area. One traditional leader had this to say:

*"Since time immemorial our ancestors have been conserving natural resource because of the economic value for the wildlife but because they had an appreciation the need to conserve nature. The economic value that is being talked about today is a creation of the Whiteman. We used totems as a conservation measure long before the coming of the Whiteman."*

The traditional leader was however quick to admit that as people living with or closest to wildlife they are more likely to lose the most when it comes to deterioration in both the quantity and quality of wildlife in the area. Therefore they appreciated the need for dynamics in proper tools and incentives, to conserve the natural resources. One woman chipped in and pointed out that the benefits derived from this decentralized management of wildlife in the area outweigh the costs of conservation. She said:

*"My husband passed on 10 years ago and the proceeds from CAMPFIRE have sustained us over the years..."*

One key informant lamented that there was a defined group, in the district that had the right and the ability to include or exclude other participants. This however posed the danger of fragmenting the community and had the potential for the demise of the conservation program. One participant opines that the council was skilfully co-opting the support of local political leadership this had the potential to turn the community based program into a political outfit that had the prospective of alienating other members of the community. The contention in one focus group was that there is need to establish differential benefits for those who live on the boundaries of the 400 hectares. Their argument was that they bear the most cost of conserving wildlife for example they pointed out they experience the most human wild life conflicts. The consensus in the group was that the national parks rangers have stopped patrolling areas adjacent to the 400 hectares and there is no one left deal with problem animals. They pointed out that animals have started moving to the villages, destroying people's crops. Literature posits that focused incentives are vital to keeping people's commitment to community programmes. One respondent had this to say:

*"We are risking our lives by guarding our crops day and night, sporadically resulting in grave encounters with wildlife. This is leaving us with no time to do other income generating ventures."*

## **5.2The EMA Contention and Implication on Natural Resources Management**

Several groups and institutions are involved in environmental management to varying degrees in the study area. Each is important in the function it performs as part of solutions to resource degradation. However it was established that GoZ has the ultimate responsibility of formulating comprehensive legislative framework to promote both preservation and conservation. According to Mullein *ibid* most these national legislature succeed in alienating communities from their god given resources but fail to control misuse. The contention being that most management instruments are prone to patronage and corruption. In Zimbabwe instruments such as licensing, permits and fines are being abused for self-economic enrichment at the expense of protecting the environment to ensure sustainability.

It has become evident that the legislature has become compromised by individuals who have both economic and political interests in maintaining the status core even at the expense of natural resources. Politicians despite being aware that some programs needed proper planning in terms of protecting the environment are at the fore advocating a *laissez fair* attitude to both environmental preservation and conservation. The amendment 17 to the Lancaster house constitution by parliament to allow compulsory acquisition of land took precedence over dictates of environmental management such as EIAs (Murombedzi, 2003). It seemed the executive was worried about their political survival rather than long term conservation. It can be argued that such policies undermined local initiatives to protect the environment. There seem to be conflict between the state's role of enacting enabling environmental management policies and the interests of individual politicians. In Zimbabwe, resource

conservation investments are not given priority in the fiscus. Most economic blue prints for the past years have emphasized exports to bring the much needed forex. Cash crops were promoted thus creating distortions in land use patterns. Mullen (2013) contends that the consequences of fiscal regimes is in terms of incentives to resource depletion programmes instead of environmental management impinges upon resource conservation. The fiscus in the country seem to support environmentally depleting cash crops such as tobacco. The most technological inventions are not for resource management but are in response to export driven demands

## 6. Conclusion and Recommendation

Conclusively, it is the realization by the poor and marginalized in Mbire RDC that natural resources that they depend on are being degraded that led to a rethinking and a growing consciousness of the need to manage and conserve them. A growing consciousness of the fact that natural resources are common property also led to the need of this community based management and conservation effort. Mbire communities are now taking proactive roles in championing and advocating for resource conservation. It is vital to note that environmental management on conservation of natural resources plays a critical role in the resurgence of Campfire areas in Zimbabwe. In light of the arguments raised above it is vital to consider that within the CAMPFIRE areas there is need to advance the implementation of CBNRM programs by ensuring complete devolution of authority. The contention in complete decentralization in Natural resource management and use is of significance to advocates of decentralization and local democracy, because they are a source of revenue and power, and therefore potential legitimacy (Ribot, 2013). It is this realization that will make it difficult to have complete decentralization in CAMPFIRE areas. The initial success of campfire programs has tempted local environmental management to believe that the success is reduced to the individual qualities of local actors. Yet In many situations, environmental governance outcomes depend less on the personal qualities of the local actors but more on the incentives created by the programs. The recent deterioration in the quality and quantity of wildlife in the study area supports this contention. The drop in incentives received by communities in the ward has left them with no motivation to conserve.

## References

- Cohen, L and Manion, L.(1995). *Research Methods in Education*. 4th Edition. New York: Routledge
- Environmental Management Act.(2002). EMA Act (Chapter 20:27), Government Printers, Harare
- Gandiwa, J. (2004). Sustainable Development set to be enhanced through the New Environmental Management Act. *Natural Resources Bulletin* Vol. 16:1:1
- Dzvimbo, M.A.; Monga, M and Magijani, F.(2018). The Dilemma on Reconceptualising Natural Resources in Campfire Areas In Zimbabwe. *Advances in Social Sciences Research Journal*, 5(8) 522-533
- Government of Zimbabwe (2003). National Environmental Policy, Second Draft. Prepared By Ministry of Environment and Tourism. For Discussion and Consultative Purposes Only, Jongwe Printers, Harare
- Government of Zimbabwe.(2002). Environmental Management Act(Chapter 20:27). Government Printers, Harare
- GoZ (2009). National Environmental Policy and Strategies, Ministry of Environment and Natural Resources Management, Government of Zimbabwe, Harare
- Madden, F. and McQuinn, B. (2014). Conservation's blind spot: the case for conflict transformation in wildlife conservation. *Biological Conservation*, 178, 97-106
- Mapira, J.(2014). Zimbabwe Environmental Education Programme and Implications for Sustainable Development. Doctor of Philosophy thesis. Faculty of Education, University of Stellenbosch
- Mapira, J. and Mungwini, P. (2005). River Pollution in the City of Masvingo: A Complex Issue, *Zambezia* Vol. 32, Nos. i/ii: 95-106
- Mertens, D.M. (2003). Mixed Methods and the Politics of Human Research: the Transformative-Emancipatory perspective. In, Tashakkori A and Teddlie C (eds.). *Handbook of Mixed Methods in Social and Behavioral Research*. SAGE, Thousand Oaks, CA
- Miller, G.T. (1994). *Living in the Environment: Principles, Connections and Solutions*, Wadsworth Publishing Company, Belmont
- Mullen, J. (2013). *Conservation and Natural Resource Management: Implications for Livelihood Security and Poverty Alleviation*. University of Manchester
- Murombedzi, J.C. (2003). *Pre-colonial and Colonial Conservation Practices in Southern Africa and their Legacy Today*. Juta Press, Cape Town

- Palmer, J.A (1998). *Environmental Education in the 21st Century: Theory, Practice, Progress and Promise*, First Edition, Routledge, London
- Ribot, J. C. (2002). *Democratic decentralization of natural resources: Institutionalizing popular participation*. Washington, DC: World Resources Institute.
- Ribot, J.C. (2013). *Democratic Decentralization of Natural Resources: Institutional Choice and Discretionary Power Transfers in Sub-Saharan Africa*. World Resources Institute, Washington, DC, USA. *Public Administration and Development* Vol. 23, No. 1 January 2013
- Sayer, J; Elliott, C, Barrow, E.; Gretzinger, S; Maginnis, S; McShane, T and Shepherd, G.(2004). *The Implications for Biodiversity Conservation of Decentralized Forest Resources Management*. Paper prepared on behalf of IUCN and WWF for the UNFF Inter-sessional workshop on Decentralization Interlaken, Switzerland, May 2004
- Snape, D and Spencer, L. (2003). Ritchie, J. and Lewis, S. J. (Eds) *Qualitative Research Practice a Guide for Social Science Students and Researchers*. SAGE Publications London, Thousand Oaks
- Tsiko, S. (2010). *Zimbabwe: Community-Based Natural Resource Management Vital*. African Union, Addis Ababa
- Wasonga, V. O; Kambewa, D and I Bekalo, I. (2013). *Community- Based Natural Resource Management. Managing Natural Resources for Development in Africa: A Resource Book* file:///C:/Documents and Settings/Viv/Desktop/Publications/Managing
- Oosterveer, P and Bas Van, V. (2011). *Environmental Systems and Local Actors: Decentralizing Environmental Policy in Uganda*. MUP, Kampala