Afro Asian Journal of Social Sciences
Volume 4, No. 4.1 Quarter I 2013
ISSN: 2229 – 5313

TRADITIONAL ENVIRONMENT CONSERVATION STRATEGIES IN PRE-COLONIAL AFRICA: LESSONS FOR ZIMBABWE TO FORGET OR TO CARRY FORWARD INTO THE FUTURE?

Munyaradzi Mawere
Associate Professor at Universidade Pedagogica, Mozambique and PhD candidate at the University of Cape Town, South Africa

ABSTRACT

While the subject of conservation has been heavily contested in environmental studies in the last few decades in many African developing countries, the monumental studies on the subject have focused on post-independence period. In Zimbabwe, for instance, insignificant attention has been devoted to examining the environment conservation strategies that were used in the past, especially in pre-colonial Zimbabwe. Yet, these strategies were used at considerable success to conserve the 'natural' environment before western scientific strategies were instituted by the colonial government and later on adopted by post-independence government. This paper attempts to critically examine the traditional environment conservation strategies that were used during pre-colonial period in Zimbabwe in terms of their effectiveness and possible use in complementing modern conservation efforts. The choice of Zimbabwe as a case study is premised on the fact that it is one country that suffered colonialism and continues to use the western-based conservation strategies in its national conservation projects; it therefore represents many others in similar situations. The main thesis of the paper is that while scientific conservation strategies adopted by post-independence Zimbabwe cannot be underestimated, these strategies could have been more successful if they integrated the 'traditional' conservation strategies that were used in pre-colonial Zimbabwe. To this end, the paper concludes that the despising and disuse of traditional environment conservation strategies by advocators of scientific conservation strategies in Zimbabwe have done more harm than good to the country's national conservation project.

Keywords: Environment conservation, tradition, science, pre-colonial, Zimbabwe

INTRODUCTION

It is an undeniable historical fate that with the advent of colonialism and the influence of Western 'civilization' in Africa, the Africans' traditions, values and way of life in general were significantly transformed. The effects of colonialism were tremendous and are still felt and will continue to be felt in many sectors of African societies even many decades after independence from Western imperialism. Taking the instance of Zimbabwe, colonialism and its twin sister, globalization has seen environment conservation methods being borrowed largely from the Western scientific conservation models. While there is nothing wrong for many Africans to use Western environment conservation models as long as they are applicable and helpful to their situations, the thesis advanced in this paper is that there is need to complement the Western conservation models with the 'local' models enshrined in indigenous knowledge systems (IKSs). This is to ensure the continued thriving of traditional conservation models and 'cognitive justice' (Visvanathan, 2009) between diverse knowledge forms with a view to promote a democratic and sustainable interaction of different conservation models across cultures. Such an approach is contrary to the Western based world-view and some scholars who conceive Science as superior to all other knowledge forms, and humans as the only beings with the capacity to control and determine the fate of other beings and nature. The latter view has been aptly captured by Fairbanks (2010) who avers:

> *Until recently, Western virtue ethics has never recognized nature-focused virtues. This is not surprising, since Western philosophies and religions have promoted the ideas that humans are superior to nature and that there are no moral principles regulating our relationship to nature.*

Against this background, the present study seeks to criticize the unequal relationships between nature and culture by promoting "symmetrical anthropology" (Latour 1993, 2007) - an anthropology that moves beyond the nature/culture divides and is capable of representing both the modern and pre-modern perspectives. This is what Stengers (2005) calls 'cosmopolitics'- a politics constituted by multiple, divergent worlds whereby indigenous movements may meet scientists and environmentalists of different stripes. Such an approach has the merit that it enhances interactions/relations between plants,

humans and non-humans that move beyond the nature/culture divide in promoting holistic sustainable productive systems and in a strict sense humans' freedom of choice and free-will (in a productive sense). It also allows the interface of Science with other knowledge forms such as indigenous knowledge systems.

While indigenous knowledge systems (IKSs), and in particular the Shona (of Zimbabwe) IKSs are created in specific geographical and historical situations, this does not necessarily render them incompatible and/or inapplicable to contemporary life situations including environment conservation projects. It is in light of this understanding that I argue that by excluding traditional conservation strategies in contemporary conservation models, we are leaving out important knowledge that might help easing the contemporary environmental crisis the world is currently experiencing. As revealed by the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC, 2001), the global average temperature will increase by 1.4° C to 5.8° C between 1990 and 2100 if the levels of emissions are not reduced. According to the same report the increase in temperature is largely attributed to the anthropogenic activities especially the use of fossil fuels in the developed/industrialized world. In the face of these problems, developing countries especially in Africa are even more vulnerable due to their dependence on burning fuels. The impacts of climate change in Africa are generally manifested in deteriorating human health (especially in relation to lung cancer, TB etc), agricultural sector and worsening of the existing levels of poverty – factors which undermine all development efforts in the continent (Mawere, 2010).

It is in light of the above observations that this paper advances the position that the deployment or at least integration of IKSs in contemporary environment conservation projects is necessary in dealing with the tapestry of environmental problems Zimbabwe and the world at large are facing. To prove the praxis and viability of such an integrative approach, a number of 'traditional' environment conservation strategies that were used in pre-colonial Zimbabwe are explored and their implications elaborated. The paper gives as its conclusion that a comprehensive integrated approach that involves the integration of

Science with other knowledge forms or at least the complement of diverse knowledge forms in conservation projects is potentially powerful to inform, educate and influence researchers and policy makers in contemporary conservation projects. As rightly pointed out by Churchill (1996) such an approach is important in fostering confidence among the once marginalized groups and in promoting the rethinking of those values that were once castigated as useless by Western hegemony during colonialism in Africa. In his words, Churchill thus has this to say:

> *Indigenist thinkers have advocated for the recovery and promotion of Traditional Indigenous Knowledge (TIK) systems as an important process in decolonizing indigenous nations and their relationships with settler governments, whether those strategies are applied to political and legal systems, governance, health and wellness education, or the environment.*

The approach advocated in this study seems to be the cause for concern for some renowned African scholars such as Ngugi wa Thiongo when he argues for decolonization of the African mind (and of those who colonized Africa) whose consciousness and culture were for a moment submerged and undermined by Western imperialism.

THEORETICAL FRAMEWORK

The present study is within the broad theoretical framework of indigenous knowledge systems (IKSs). This owes to the fact that traditional environment conservation strategies fall within the precincts of the broad concept of indigenous knowledge systems. It should be remarked however that the concept of IKS is quite confusing hence, has sustained controversies of epic proportions in cultural studies and anthropology. Given the nebulous nature of the concept of IKS coupled with its different interpretations evoked by the deployment of the concept across different cultures and disciplines, a vigorous understanding of the concept calls into question its practical manifestations and significance in different contexts, particularly in anthropology and cultural studies.

IKSs can be defined as local knowledge(s) that is unique to a given culture or society (http://www.sedac.ciesin.columbia.edu). They ‘are knowledge forms that have failed to

die/disappear despite the racial and colonial onslaughts that they have suffered at the hands of western imperialism and arrogance' (Altieri, 1995:114).

The two definitions given above suggest that IKS as a form of knowledge is intergenerational, that is, it is passed on (orally or by traditional practices) to future generations by those who hold it. Also important to note from the aforementioned definitions is that IKSs have originated naturally and locally. However, a critical question arises here: 'What does it mean to be local?' In relation to the second definition, a critical question can be raised as well: 'Does IKSs as knowledge forms only exist in formerly colonised areas?' Considering these possible critical questionings, my conception of IKSs identifies with Ocholla (2007: 2) who perceives IKS as "a complex set of knowledge and technologies existing and developed around specific conditions of populations and communities indigenous to a particular geographic area". The complexity of IKS results from the logical qualification with the word "system" as it suggests generations of creative thought and practice as well as a network and "meshwork" of processes with different components such as knowledge, belief and technology.

On the other hand, IKSs are local and/or "indigenous" because the meanings as well as the categories of sense making are generated internally within a cultural community and are/were produced through "indigenous" thinking or exploration whether material, philosophical, religious or linguistic. This means indigenous knowledge can also be understood (if you like) as "local knowledge" (Kargbo, 2005: 200), "traditional knowledge" (IDRC, 1992), local technical knowledge, indigenous and traditional knowledge (Kawooya, 2006), community knowledge and in some cases as folkloric knowledge (Kargbo, 2005: 200). In this paper, the terms indigenous knowledge system (IKS) and indigenous knowledge (IK) are applied to mean one and the same thing, and therefore used interchangeably. It should be emphasized that what commonly underlies all these bodies of knowledge known as IKSs is the fact that they are developed through the processes of acculturation and through kinship relationships that societal groups form, and are handed down to posterity through oral tradition as well as cultural practices like

rituals and rites. Also, IKS remain the adhesives or epoxy resin that bind and harmonize society as they constitute communicative processes through which knowledge, moral values and philosophy of life are transmitted, preserved and acquired by humans in a given society (Mawere, 2011).

From that said, it is evident that IKSs are potentially liberating and pro-actively progressive especially given that it advocates for the use of local, as opposed to foreign, knowledge while at the same time gives room for integration and assimilation. For the Shona people (of Zimbabwe), the deployment of IKS in the face of environment crisis the country is experiencing is a twilight area that needs serious consideration because it has the potential to guide Zimbabweans in the fight against the mounting environmental problems. The potential of IKS is aptly captured in Simpson's (2004) argument that:

> *Recovering and maintaining indigenous worldviews, philosophies, and ways of knowing and applying those teachings in a contemporary context represents a web of liberation strategies [that] Indigenous Peoples can employ to disentangle themselves from the oppressive control of colonizing state governments.*

The argument advanced by Simpson clearly shows that IKSs are not only theoretically important, but practical in their implication; they have the potential to liberate and harmonize societies as well as resuscitate the pejoratively damaged image (by colonialism and western science) of formerly colonized societies such as Zimbabwe.

TAKING STOCK OF ENVIRONMENT CONSERVATION STRATEGIES USED IN PRE-COLONIAL ZIMBABWE: A BRIEF CRITIQUE

Unlike in modern Zimbabwe where expert science is officially used as the sole agent for environment conservation, pre-colonial Zimbabwe deployed a myriad of "traditional" strategies enshrined in indigenous knowledge systems to conserve the natural environment. These included, among many others, *zvierwa/zviera* (taboos), *unhu* (ubuntu), *ngano* (folktales), *mitupo* (totemism) and conception of natural resources as common property. In the ensuing paragraphs, I explain how each of these strategies was

used to conserve the natural environment and promote sustainable utilization of natural resources.

Taboos

Environment conservation is not a new phenomenon in post independence African countries such as Zimbabwe. Neither is it a product of colonialism or the so-called Western civilization. In pre-colonial Africa and in particular pre-colonial Zimbabwe, environment conservation was always a common practice with taboos being one strategy among many that were used to conserve and sustainably exploit the natural resources. For scholars such as Tatira (2000), taboos were a useful way of keeping check on children as for him each taboo had two parts, namely, a 'surface meaning' (a lie) and the truth. In his words:

> *Shona people often use zviera (taboos) as one of the ways of teaching young members of their society. The Shona had, and still have, unique ways of transmitting social values which are crucial to the development of their society. Zviera, among other practices, encourage conformity (Tatira, 2000: 147)*

In this paper, I go beyond Tatira to argue that taboos were not only sanctions to correct behavior of the young/to teach the young members of the society, but also the adult about how they should conduct and behave themselves before others and the natural environment. I have also argued elsewhere that not all taboos had two parts i.e a lie/surface meaning (which carried fear-inducing consequences) and the truth as there were true taboos and false taboos (see Mawere & Kadenge 2010). Gelfand (1979: 138) grouped taboos into six categories according to themes, namely, 'those that talk about living in the correct way, successful pregnancy, avoidance of danger, good behavior, healthy living, and those conveying religious teachings'. While the subject of taboos is very broad as exemplified by Gelfand above, for purposes of this work I will only focus on one of the categories that Gelfand left out by default or otherwise. This is a group of taboos that were meant to teach people to be at harmony with the natural environment and other sentient beings therein. Some of the taboos in this category are:

a). *Usatema kana kukwazha michero yesango* (Do not cut down or knock down unripe wild fruits). The consequence for violating this taboo was that the perpetrator will send ire to ancestors who will in turn cause fruit trees not to bear fruits in future seasons. In some cases, the perpetrator will be chased by an "invisible" ancestral lion (*Mhondoro*). As Bourdillon (1987) rightly pointed out, *Mhondoro* spirit is a revered Shona territorial spirit that is believed to have dominion over a very big area and whose anger can result in misfortune or even death of the perpetrator.

b). *Usaitira tsvina mutsime* (Do not excrete in a well). The consequence for violating this taboo was that the perpetrator will suffer from bilharzia. It is a truism that everyone desires good health. Thus because the consequence was undesirable to the perpetrator and would possibly cause health problems to entire community members who use the urinated water for domestic purposes, it means that people were obliged to avoid vicious characters that may result in ill health.

c). *Usauraya datya* (Do not kill a frog). The consequence was that the water reservoir i.e a well, river or dam will dry up. In the Shona culture, it is considered cruelty to kill an animal you do not eat. In reality, frogs are inedible in the Shona culture and, so taboos such as this were to be put in place to protect the lives of such sentient beings.

d). *Usaraura mutsime* (Do not fish in a well). The consequence for violating this taboo was that the well will dry up. In reality, fishing from a well will in most cases pollute the water and drastically reduce the number of fish therein, especially considering the size of a well. Such consequences were quite undesirable given that water is indispensable for life sustenance of human beings and all other beings on earth. And as the consequence was indeed a curse to the entire community, perpetrators were severely punished once caught.

e). *Usauraya haka* (Do not kill a pangolin). The consequence for violating this taboo was that ancestors would invite a spell to befall you and your family. In reality, pangolin has always been one of the rare species that were feared to extinct if overexploited, hence this taboo was meant to ensure that it doesn't reach a point of extinction.

As has been shown above, all the taboos in this category were not only meant to teach the young, but also the adult people to be at peace with the natural environment and other sentient beings therein. All people (young and old), thus were discouraged from harming the environment by way of pollution, deforestation or cutting down fruit trees, indiscriminate killing of other sentient beings and overexploitation of resources. This is a clear testimony that the Shona people of Zimbabwe as with many other African social groupings always valued sustainable exploitation of their natural resources which were basis for their livelihoods.

Common property

In Zimbabwe, "there are four distinct forms of property rights in natural resources namely state property, private property, non-property (open access) and common property" (Masiiwa, 2002: 17). Focusing on the latter, "common property refers to private property for a group" (Masiiwa, 2002: 17). According to MacPherson (1978), property refers to an enforceable right of a person or persons to some use or benefit of something. It is a relationship of some sort between people and "things", in this case, resources. Common property rights therefore dictate that all members of the group have the rights that they may not be excluded from utilizing the resources that belong to them as a group. In fact it is the group and not an individual who has the sole rights to include or exclude other individuals or groups from using or benefitting from the resource.

As a traditional environment conservation strategy, common property was used in pre-colonial Zimbabwe and other African societies to ensure full responsibility and participation by all community members in the management and conservation of resources in their natural environment. In pre-colonial Africa, Hardin's (1968) "tragedy of the commons" thus was proved wrong. Tragedy of the commons is a theory which states that common property regimes lead to land degradation as each individual farmer seeks to maximize their own gain at the expense of that of the community. For Hardin (1968), the common property management fails to provide any incentive to conserve the natural environment as each herdsman egoistically competes at raising as many animals

as possible. Although natural environment in pre-colonial African societies seem to have suffered the fate of "the tragedy of the commons", such common ownership of resources in the natural environment has proved to be one of the best ways of managing and sustainably use natural resources. This is contrary to the common notion held by the colonial governments that common property results in careless, irresponsible and over-exploitation of community resources. In fact common property created an even stronger sense of responsibility and sustainable use of resources given that everyone considered himself/herself a beneficiary and owner of the resources.

Totemism

Totemism is one other traditional environment conservation strategy that was deployed by the Shona and other Bantu tribal groupings both as an identity mark and approach to ensure sustainable use of resources in the natural environment. Technically, totemism is a form of identity by a particular clan/group of people using totems of which a totem is nonhuman animal (or part of an animal) that one who uses it as a totem is forbidden from eating, mistreating, and abusing or indiscriminately kill it. For instance, persons who belong to the patrilineal clan of *shiri* (bird) are known as *vaera shiri* (those that must not eat bird). This means that a person who belongs to the patrilineal clan of *vaera shiri* is forbidden from eating or at least abusing birds. Likewise, those who belong to the patrilineal clan of *vaera nzou* (those that must not elephant) are forbidden from eating the heart of any animal. What it entails is that it becomes one's philosophy or ethos not to eat particular nonhuman specie or part of that specie which s/he uses as a totem. For that reason, eating one's totem in the Shona culture and many other African cultures is considered a taboo with fatal consequences such as misfortune, illness or falling away of the victim's teeth. Though totemism was not hundred per cent effective in promoting sustainable exploitation of resources in the environment, it helped the Shona people and other societies in pre-colonial Africa to live at peace with other [nonhuman] beings by avoiding their over-exploitation and abuse or by safeguarding them from extinction. Kasere (2010) captures this aptly when he observes that:

> *Although the system [totemism] was not protectionist par excellence, these totemic groups represented interest groups for their respective animals and could not stand total depletion or abuse. Western animal rights groups; who from their well-ventilated animal-free offices, shout their worry for aesthetic reasons that they have more concern for wildlife than do Zimbabweans; should be reminded that that of wildlife in this country had far more to do with the belief system of indigenous people who associated their survival with that of certain species. They can never be considered less caring than foreigners about the extinction of wildlife.*

Notwithstanding its limitations, totemism thus ensured that morality is not only extended to the human species, but to nonhumans and other such beings. This was made possible in so far as at least each person or group of persons were forbidden from indiscriminate killing, abusing, mistreating or eating certain nonhuman species especially those that represented the person(s) as a totem.

Ubuntu

The concept of 'ubuntu' though, has gained tremendous prominence in intellectual discourse over the years in Africa and beyond, is peculiarly difficult to define with precision. This is because the concept is elastic and pragmatic in so far as it is employed to inform almost all spheres of the Bantu world-views; it is used in numerous contexts and situations. In linguistic terms, however, the concept is traceable to the so-called Nguni Bantu languages, particularly Ndebele and Zulu. In many other Bantu languages, the concept has equivalent terms which show that Africans generally share many things and philosophies in common. For example, in the Shona of Zimbabwe, ubuntu is equivalent to the concept 'hunhu' (humanness). Yet, the central question remains: 'What is it that is referred to as ubuntu, and how did it influence environment conservation in pre-colonial Africa?'

As espoused by Ramose (1999), ubuntu is a multi-faceted philosophical system that involves logic, metaphysics, epistemology and ethics; it is a philosophy of life that is concerned with the reinforcement of unity, oneness, solidarity and harmony among the Bantu people of Africa. It is the "human face" of the African people. The distinctive

elasticity and practical nature of ubuntu makes it applicable in almost all facets of human life including the natural environment. As such, the concept has been wisely exported as an underlying philosophy or code of conduct into business, legal system, education, theology/religion, healthy, academic disciplines and environment conservation projects. This is aptly echoed by Ramose (1999) who notes that African philosophy based on 'Ubuntu' is a living philosophy, based on their recognition of the continuous oneness and wholeness of the living, the living-dead and the unborn. For Ramose, and rightly so, it is commonly believed that in pre-colonial African societies, the concept of ubuntu was instrumental in maintaining social cohesion, administering peace and order for the good life of everyone in the society and even strangers (Mawere, 2010). This connotes that the social praxis of ubuntu has always been wholesome and all encompassing though has not been widely studied in relation to nature conservation in African societies. The use of philosophy of ubuntu in environment conservation projects in Africa was therefore more pronounced during pre-colonial period as the moral dimension was also extended to the natural environment; the philosophy was used to encourage sustainable use, respect of all beings (human and nonhuman) and 'good' relations of man with his natural environment.

Ngano

'Ngano' are stories told to young children from about five to eleven years of age, although adult persons are not forbidden from listening to the stories. The stories are often false but created to offer a wide range of lessons to the young children who still need their elders to inculcate values in them. The stories are normally told by an elderly and well experienced person of reputable character in the village. This can be an old woman (grandma/aunt) or an old man (*sekuru*).

In a typical Shona traditional culture, as in many other African traditional cultures, 'ngano' were told in winter and at night when the activity doesn't disturb normal chores/activities of the time. To tell *ngano*, both *sarungano* (the story teller) and *vateereri* (listerners/audiences) were supposed to be present. The later were normally young children, both boys and girls, while the former was an old woman or old man.

With his thrilling stories, the story teller managed to 'take' his/her audiences from this physical world to the world of fantasy, from the world of reality to the world unreal. The stories were often of different characters ranging from animals, snakes, birds and persons, but all accorded the powers to act as human beings. To educate the young through 'ngano,' the villains are never cherished but always punished in these stories. The lessons concerned many aspects of life including knowledge about how the natural environment should be cared, conserved and exploited to ensure the continued thriving of resources. It is this way that *ngano* were used as traditional environment conservation strategies in pre-colonial Africa.

UNDERSTANDING ENVIRONMENT CONSERVATIONAL RELATIONS IN ZIMBABWE: A BRIEF HISTORY

As has been pointed out earlier in this paper, environment conservation is not a new phenomenon in post-independence African countries. Neither is it a product of colonialism or the so-called Western civilization. In pre-colonial Zimbabwe, for instance, environment conservation through the so-called indigenous knowledge systems has always been in common place as has been demonstrated in the preceding paragraphs. Both the Shona and Ndebele tribal groupings (two major tribal groupings in Zimbabwe) with their developed government systems headed by Chiefs and supported by the councilors and headmen, respected the natural environment. Natural environment was considered common property and was sustainably managed through the wise deployment of indigenous knowledge systems explicated above. With these indigenous knowledge systems acting as customary laws, there was informal mutual understanding at all levels of the community in terms of how, when, by what means and by whom resources were harvested and used. Activities like fruit harvesting, cutting down of trees, hunting, fishing, grazing and gathering of other resources from the environment were also regulated by these customary laws enshrined in indigenous knowledge systems. Notwithstanding their limitations, these management strategies had the merit that communities had a strong sense of ownership with the powers to conserve, manage and administer their own environment and all the resources existed therein. This created a

strong sense of responsibility and promoted a sustainable relationship between humans and nonhumans or nature in general. What then went wrong with these traditional environment conservation strategies?

With the colonization of Zimbabwe by the British in the late 1880s, all the IKSs alongside their customary laws traditionally used to conserve the natural environment were despised, with and the black Zimbabweans subordinated socially, economically, politically and in a sense psychologically. While the colonial government in Rhodesia (now Zimbabwe) can be praised for suggesting the need for the use and legislation of some monitoring techniques and conservation measures and, for establishing a formal management infrastructure for their research, implementation, and support through extension services, this had two major drawbacks on environmental conservation. First, it created pressure on resources through its Land Apportionment Act of 1930 and later the Native Councils Act of 1937 which respectively took away land from the majority to the hands of the white minority and formalized the stripping away of powers to administer and manage common property from traditional local structures. Instead, chiefs and their headmen were given tasks such as that of tax collection and enforcement of stringent environmental laws which made them more unpopular and enemies of their own people/subjects. The two Acts thus naturally mounted pressure on the environment in the countryside and made common property management through community participation impossible as it was now done through draconian laws from the central government. It is beyond reasonable doubt that this move compromised or rather paralyzed conservational capabilities of the rural communities. Second, the colonial government instead of seeking ways to merge traditional conservation practices with expert science in the national conservation project, it despised and relegated as unscientific and backward all conservation practices based on IKSs. It failed to realize that IKSs were knowledge forms that the locals had used successfully for centuries now in conserving their ‘natural’ environment. Thus with the advent of colonialism alongside its scientific environment conservation techniques and nature/culture dichotomies, the African ‘holistic’ understanding of the environment was lost. Some species which the locals considered

valuable like edible insects, for example, were judged less important, hence were not accorded priority in the colonial government's conservation agenda.

At independence in 1980, the Zimbabwean government appeared to commit itself to rectify the problems created by the colonial government. The post-independence government thus vowed to transfer land from white minority to black majority, to arrest land degradation, and to promote sustainable land management by publishing Zimbabwe's National Conservation Strategy through the Natural Resource Board, now the Environmental Management Agency (EMA) in 1980 as requested for all nations by the World Conservation Strategy report of (IUCN-UNEP-WWF, 1980). Besides, the Tribal Land Act of 1979 was repealed in 1982 in favor of the Communal Land Act of 1982. And, a bold step towards the review of [common] property rights was taken in 1982 with the formation of Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) by Zimbabwe's Department of National Parks and Wildlife Management (DNPWM). CAMPFIRE was incorporated into the National Conservation Programme in 1987 with, *inter alia*, goal to achieve sustainable management of resources by placing the custody and responsibility with the resident communities (CAMPFIRE Annual Report, 1999-2000). Due to a somewhat perceived failure of CAMPFIRE, Rukuni Commission of inquiry into appropriate agricultural land tenure system was set between 1993 and 1995. The Commission found out that the government had failed to transfer power and authority formerly vested to the state (the President) at independence to local traditional leaders leading to ineffective management of the natural environment (Rukuni, 1994). While this was a positive gesture towards conservation of all species, threatened species included, the post-independence government never implemented the recommendations by the Rukuni Commission. Worse still, the government like its predecessor failed the national conservation project in two major ways:

1. The post colonial government, just like the colonial government adopted expert science as its sole tool for environmental conservation projects thereby maintaining the assumption that only science provides the rationale and motivation for conservation.

Science, thus, became the sole rationale of the state and means of policing the environment. On the other hand, conservation became a matter of policing rather than life itself. This had the consequence that the kinds of ties the locals had with landscapes/ecologies were rendered meaningless and those species such as forest insects whose value and rights were not pronounced in the colonial government's environmental conservation project remained alienated. Even the most recent Zimbabwe's National Environmental Policy and Strategies (ZNEPS) of 2009 is silent on the moral value and rights of other fauna and flora species in the natural environment. The policy is scientifically informed and discriminatory of other entities in the environment. To make my point clearer here, I quote the ZNEPS (2009: 7) which says:

> *….at species level, the country supports an estimated 4,440 vascular plant species, 196 mammal species, 672 bird species, 156 reptile species, 57 species of amphibians, 132 fish species and uncounted numbers of species in other groups. The diversity of microorganisms in particular is extremely poorly known…*

The current environment policy of Zimbabwe, therefore, has no specific clause that provides for the protection of some species (the uncounted numbers of species). As is seen in the quotation above, one can see that species such as insects are not well recognized in Zimbabwe's environmental policy despite the contribution that most of these insects make to human livelihood and the ecosystem as a whole. We can only assume that insects, together with other small organisms are those being referred to as '….uncounted species in other groups' (ZNEPS, 2009:7). Some fauna and flora are clearly more equal than others! This is contrary to traditional conservation practices that acknowledge the moral value and rights of all entities in the natural environment. In fact for traditional environment conservation, all fauna and flora has value and so should be accorded the right or entitlement to life. This is aptly echoed by Eduardo Galeano cited in Acosta (2010) who has this to say of Ecuador:

> *Nature still has much to say and it is high time we, its children, stopped playing deaf. And maybe even God will hear the call coming from this Andean country – Ecuador- and add the eleventh commandment forgotten in the instructions given to us from Mount Sinai, 'Thou shalt love Nature, of which thou art part'.*

This thinking, though was uttered with reference to Ecuador, it is also applicable to Zimbabwe. It relates with comments I heard from some Zimbabwean rural villagers during my fieldwork. One villager, a headman, remarked: 'We are part of nature and nature is part of us. And so, nature needs respect and fair treatment in as much as we do' (Field notes, 2011). Thus, while traditional management of the environment by the rural people was informed by the locals' traditional knowledge forms, the experience that Zimbabweans went through since the colonial period have led them to despise their own traditional practices and the value as well as rights they previously accorded nature. The post-independence Zimbabwe is therefore not an exception to the conservational crises Africa and the world are facing. Unlike countries such as Ecuador that in 2008 ratified a new constitution which recognizes the inalienable and fundamental rights of nature (making it the first country in the world to do this), Zimbabwe has perpetuated the denigration of traditional conservation practices and disrespect of nature through its national environmental policy, hence the importance of reviving the traditional conservation strategies or at least develop a post-humanities approach that recognizes the interrelations between humans and non-humans.

2. The post independence government of Zimbabwe embarked on farm invasions since around 1999/2000. The invasions being politically motivated were characterized by scandalous exploitation of natural resources and disrespect of other sentient beings. They were shockingly chaotic enough to perniciously violate the 'rights' of both humans and nonhumans, and to put insurmountable pressure on natural resources and/or the 'natural' environment. Basing on the consequences of the exercise, it can be safely argued that during farm invasions in Zimbabwe the magnitude of pressure on the environment significantly surpassed that the colonial government exerted with its Land Apportionment Act in the 1930s. In addition to violation of human rights and careless exploitation of natural resources, the invaders disregarded the value of traditional/daily practices and other 'players' in conservation like forest insects. This led to environmental conservation

meltdown in the country and an unimagined compromise on the locals' sources of livelihood.

SUSTAINABILITY VIS-À-VIS ZIMBABWE'S CONTEMPORARY ENVIRONMENT CONSERVATION PROJECT: WHAT HAS TO BE DONE?

Following the preceding discussion, it is evident that there is lack of sustainability in the contemporary Zimbabwean environment conservation project. Natural environment is a contributing factor to socio-economic development as it plays a major role in all forms of development and sustainability. The role and importance of natural environment in sustainable development thus cannot be under-estimated. Yet, where there is environmental crisis, for example in many African countries including Zimbabwe, we can hardly talk of sustainable development.

It is worth noting that the field of sustainable development can be conceptually broken into three constituent but inter-related parts: environmental sustainability, economic sustainability and social-political sustainability (NISER, 2009). Sustainable development does not focus solely on environmental issues. More broadly, sustainable development policies encompass three general policy areas: economic, environmental and social (NISER, 2009). In support of this, several United Nations texts especially the 2005 World Summit Outcome document, refer to the 'interdependent and mutually reinforcing pillars' of sustainable development as economic, social development and environmental protection. This requires balancing human needs against the potential that the environment has for meeting them. In view of this understanding, the term sustainable development has been defined as 'development that meets the needs and aspirations of the current generations without compromising the ability of future generations to meet their needs' (World Commission on Environment and Development, 1987:8; NISER, 2009). While for many years this has been considered as the standard definition for sustainable development, it has been criticized for being silent and specific on issues concerning social and cultural systems. In an attempt to include social and cultural elements in the definition of sustainable development, the International Council for Local

Environmental Initiatives (ICLEI, 1997), has identified the society, the economy, and the environment as representations of sustainability and the balance or equilibrium between these three stakeholders to be what should be considered as sustainable development. In the present study, more emphasis is given to a balance between environmental and cultural systems that encompass values, traditions and norms attached to the natural environment. By so doing, opportunity to customary laws as traditional environment conservation strategies enshrined in indigenous knowledge systems that can be deployed for sustainable development of humanity are created. Thus in a more general sense, the concept of sustainable development can be seen as the facilitator for balancing the conservation of nature's resource with the needs for development. That is, sustainable development means improving the quality of human life while living within the carrying capacity of supporting ecosystems. Such an understanding challenges the post-colonial Zimbabwean government's National Environmental Policy and Strategies for being silent on some species in the natural environment. The government through its disregard of traditional conservation strategies as well as its policy which only 'documents vascular plant species, bird species, reptile species, species of amphibians, fish species and uncounted numbers of species in other groups' (ZNEPS 2009:7), thus can be considered an accomplice in land degradation and the environment conservation crisis in Zimbabwe.

In light of this observation the present study argues for a "generative dialogue" (Verran, 2011) between knowledge forms as well as between the environmental, economical and socio-cultural systems in order to ensure that sustainable development is achieved. With regard to sustainable dialogue between knowledge forms in environment projects, this implies a situation where traditional environment conservation strategies complement or work in collaboration with scientific environment conservation strategies. There is no doubt that such an integration approach will promote sustainable development as there is participation and involvement of all "actors", systems and relationships/relationalities between actors in the environments. Besides, it has been proven beyond reasonable doubt that science alone cannot succeed to solve Zimbabwe, and other countries' environmental conservation crises. Neither can indigenous knowledge forms alone be able to solve all

the environment related problems we are facing given the magnitude the problems have reached. There is need therefore for an integrative approach that is open-ended and that acknowledges other forms of knowledge, practices or "participants/actors" that might also be useful in environment conservation projects in the country.

CONCLUSION

This study has revealed that though indigenous knowledge systems have been despised and pejoratively labeled by the western hegemony and imperialism, they have the potential to ease (if allowed to work in collaboration with scientific efforts) the environmental problems resonant of most developing countries in Africa and beyond. This argument has been advanced in light of the evidence that 'indigenous' or 'traditional' environment conservation strategies, unlike the modern scientific conservation strategies were successful [in pre-colonial Africa] in promoting sustainable exploitation of resources from the environment. Yet the arrogance of science over other knowledge forms remains visible as it continues the sole adjudicator in measuring and testing the validity of its own knowledge claims and those of other knowledge forms.

More importantly, the study has recommended that the environment conservation problems in the country and beyond can only be tackled if swift and immediate measures are put in place. The measures suggested in this study include the active involvement of local communities and serious consideration of other knowledge forms, especially those that were once marginalized by Western science. Overall, this study is a bold step towards "generative dialogue" of different knowledge forms, and environment conservation reforms in Zimbabwe and other African countries' environment conservation projects.

REFERENCES

Altieri, M.A. 1995. *Agroecology: The science of sustainable agriculture.* 2nd Edition. London: IT Publications.

Bourdillon, M. F. C. 1987. *The Shona peoples: An ethnography of the contemporary Shona, with special reference to their religion*. Gweru: Mambo Press.

CAMPFIRE Annual Report, 1999-2000, CAPMFIRE Association, Harare.

Churchill, W. 1996 I am Indigenist: Notes on the ideology of the Fourth World. In *A Native Son: Selected Essays on Indigenism, 1985 -1995*. Boston: South End Press.

Fairbanks, S.J. 2010. Environmental goodness and the challenge of American culture, *Ethics and the Environment* 15 (2):79-102.

Galeano, E. 2008. Cited In Acosta, A. 2010 Toward the Universal Declaration of Rights of Nature: Thoughts for action, Article for the AFESE journal

Gelfand, M. 1979. *Growing up in Shona society from birth to marriage.* Gweru: Mambo Press.

Hardin, G. 1968. The tragedy of the commons, In Baden, A. and Noonan, D.S. (Eds.) 1998. *Managing the commons*. Bloomington: Indiana University Press.

http://www.sedac.ciesin.columbia.edu website

International Council for Local Environmental Initiatives (ICLEI), 199. *Indicators for Sustainable Development* International Council for Local Environmental Initiatives, Toronto

International Development Research Centre (IDRC) and Dene Cultural Institute.1992. Capturing Traditional Environmental Knowledge. Available online @ URL: http://www.idrc.ca/openbooks/644-6.

Intergovernmental Panel on Climate Change (IPCC), 2001. Third Assessment Report: Climate Change TAR, http://www.grida.no/publications/ipcc_tar/

IUCN-UNEP-WWF. 1980. World conservation strategy: living resource conservation for sustainable development. *IUCN-UNEP-WWF*, Gland, Switzerland

Kawooya Dick Copyright, Indigenous Knowledge and Africa's University Libraries: The Case of Uganda. World Library and Information Congress: 72nd IFLA General Conference and Council. 20-24 August 2006, Seoul, Korea. Available online @ http://www.ifla.org/iv/ifla72/index.htm

Kargbo, J.A. 2005. Managing indigenous knowledge: What is the role for public libraries In Sierra Leone? *The International Information and Library Review* 37, pp. 200.

Kasere, S. 2010. *CAMPFIRE: Zimbabwe's Tradition of Caring*. http://www.unsystem.org/ngls/documents/publications.en/voices.africa/number6/vfa6.08.htm.

Latour, B. 1993 *We have never been modern*. Cambridge, Mass: Harvard University Press.

Latour, B. 2007. The recall of modernity, *Cultural studies review* 13 (1): 11-30.

MacPherson, C.B. (Ed). 1978. *Property: Mainstream and critical positions*, Toronto: University of Toronto Press.

Masiiwa, M. 2002. Common property rights and the empowerment of communal farmers in Zimbabwe: Institutional legal frameworks and policy challenges under globalization, In Chikowore, G. (Eds). 2002. *Managing common property in an age of globalization: Zimbabwe experiences*, Weaver Press: Harare.

Mawere, M. 2010. Indigenous knowledge systems' (IKSs) potential for establishing a moral, virtuous society: Lessons from selected IKSs in Zimbabwe and Mozambique, *Journal of Sustainable Development in Africa*, Vol. 12 (7): 211-221.

Mawere, M. 2011. A critical investigation of environmental malpractices in Mozambique: A case study of Xai-Xai communal area, Gaza Province, *Educational Research*, Vol. 2(2): 874-883.

Mawere, M. & Kadenge, M. 2010. *Zvierwa* as African indigenous knowledge systems: Epistemological and ethical implications of selected Shona taboos. *INDILINGA-African Journal of Indigenous Knowledge Systems*, 9 (1), 29-44.

Nigerian Institute of Social and Economic Research (NISER), 2009. *Poverty Alleviation in Nigeria*, NISER, Ibadan

Ocholla, D. 2007. Marginalized knowledge: An agenda for indigenous knowledge development and integration with other forms of knowledge. *International Review of Information Ethics*, 7(09), 1-10.pp.2.

Ramose, M. B. 1999. *African philosophy through Ubuntu*, Harare: Mond Books

Rukuni, M. 1994. Report of the commission of enquiry into appropriate agricultural land tenure systems, Vols. 1 & 2, Government of Zimbabwe, Harare

Simpson, L.R. 2004. Anticolonial strategies for the recovery and maintenance of indigenous knowledge *American Indian Quarterly*, 28(3/4), 373-384

Stengers, I. 2005. The cosmopolitical proposal, In Latour, B. and Weibel, P. (eds). *Making things public: Atmospheres of democracy* Cambridge MA: MIT Press.

Tatira, L. 2000. The role of zviera in socialisation. In E. Chiwome, Z. Mguni & M. Furusa (Eds.), *Indigenous knowledge and technology in African and diasporan communities* (pp. 146-151) Harare: University of Zimbabwe

Verran, H. 2011. Engagements between disparate knowledge traditions: Towards doing difference generatively and in good faith. *A paper presented to Contested Ecologies conference,* Mont Flare: Cape Town, South Africa.

Visvanathan, S. 2009. The search for cognitive justice A seminar presented by the author, May 2009. Available @ htt://www.inia-seminar.com/2009/597/597shiv visvanathan.htm

World Commission on Environment and Development (WCED), 1987. *Our Common Future* Oslo: World Commission on Environment and Development.

Zimbabwe National Environmental Policy and Strategies 2009. *Ministry of Environment and Natural Resources Management*. Harare.