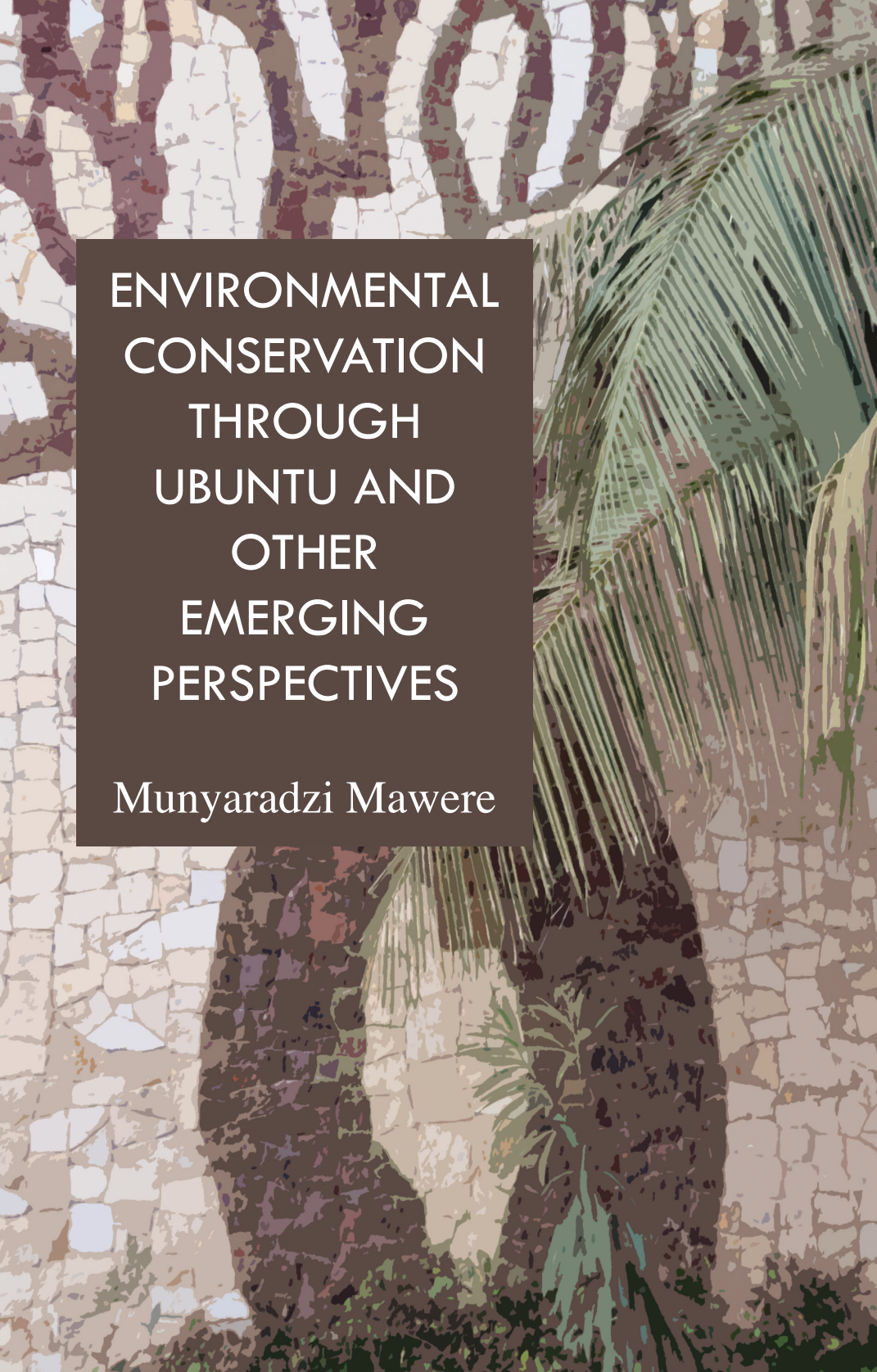

ENVIRONMENTAL CONSERVATION THROUGH UBUNTU AND OTHER EMERGING PERSPECTIVES

Munyaradzi Mawere

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Dedication

To
Langaa Research & Publishing Common Initiative Group
for encouraging the spirit of constructive research and
scholarship in and on Africa.
On behalf of Africa, I offer you a BIG thanks!

Table of Contents

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Preface

Environment Conservation through Ubuntu *and Other Emerging Perspectives* generally argues for the reinstitution of indigenous African conservation methodologies and epistemologies to complement Western science in its attempts to easy the tapestry of environmental problems that the world is suffering. For this major reason, among many others, this book comes at the right time – a time when the talk on the environmental management crisis and sustainable exploitation of natural resources is high on the agenda of the African continent. The theme of sustainable natural resource use through local community participation and indigenous conservation epistemologies in less developed countries has been on the international agenda since the first global environmental conference in Stockholm, Sweden in 1972. In this conference, a gloomy picture of resource depletion and environment degradation such as increasing desertification, soil erosion, and declining biodiversity in terrestrial and aquatic resources were attributed to the exclusion of local communities in resource management and state centred approach to common pool resource management[1] or common property. The deliberations of this conference came as a formidable challenge to those conservationists who believed that sustainable conservation can only be achieved through formal science and not initiatives from the "local" or rural communities. In Africa, the deliberations of the 1972 Stockholm conference, as with this book, come as a move towards the restoration of the environmental knowledges that were subverted and relegated by European imperialists and later perpetrated by post-independence governments.

While many scholars have looked at the problems associated with the environment from the post-colonial era or even from the decade 90s, this book makes what I can say is a 'big' leap in that it attempts to trace the history of environmental conservation and management from the pre-colonial period to the present time. Besides, the book departs from standard treatments in environmental sciences by attempting to demystify the long standing myths and dangerous assumption by many Western scholars and environmental conservationists that the indigenous people of Africa had no science; worse still conservation epistemologies for their environments. I have committed myself to do a project such as this for the major reason that to study the evolution of environmental conservation and management is not exclusively of academic interest, for without a proper conception of the history of environmentalities in modern Africa, it is difficult to see how strategies and methodologies can be devised that will solve in totality the burning question of the environmental crisis that has gripped the 'throat' of Africa and the world beyond over the years. The environmental problems of the African continent are intimately bound up with the history of European settlement on the African soils and the social inequalities they caused thereafter. In fact, as Isaacs and Mohamed[2] argue, many of the ecological ills in the Communal Areas of Africa today – e.g. in Southern Africa – attributed to poor management of natural resources are rooted in the context of political and socio-economic policies that were enforced in all resource sectors during colonialism. As such, in order to undertake an analysis of the causes of environmental crisis in Africa and the methodologies and strategies that can be put in place to

deal with the crisis; we must know its generic and historical roots.

On the same basis, this book is a challenge to scientific conservation fundamentalists who due to the long standing influence of Western scientism and hegemony still believe that Western science is the sole answer to the environmental conservation and management crises Africa and the world beyond are currently facing. I should be quick to point out, however, that the book does not only challenge conservation fundamentalists of one kind – scientific conservation fundamentalists – but of all kinds including 'traditional' or 'indigenous' conservation fundamentalists to think beyond their own different positions. In this regard, I avoid falling into the trap of "Mr Right" - making the same blunder that European colonialists made when they came to Africa thinking that what they considered as 'right' was indeed right to everyone including Africans. The book achieves this by inviting Mignolo[3] and Grosfoguel's[4] concept of critical border thinking – a concept with which they critique both imperial fundamentalism and fundamentalism of the subaltern – to issues of environmental conservation and management. I argue that such a position is brilliantly promising given the mounting environmental crisis all over the world that has shattered all hopes and efforts by science; hence the book is timely. The book, whose central argument is that African environmental problems can best be solved by open ended conservation methodologies that are African-based but coupled with other methodologies such as scientific ones, thus, makes an attempt to discuss the history of environmental conservation in Africa in an open ended way that invites conversation with different conservation knowledges – what I call a lobby for multiple conservation

knowledges. This is done with a view to demonstrate the viability and possibility of African-based conservation methodologies in complementing with Western scientific conservation methodologies in easing the tapestry of conservation problems currently haunting and shaking the continent of Africa and indeed the entire world.

Environment Conservation through *Ubuntu* and Emerging Perspectives: An Introduction

It appears odd to start a book on environmental conservation and management by having a glimpse at a survey of literature on Ancient history. However, for readers to gain a thorough appreciation of the contribution of this book – i.e. why it is important for environmentalists to look back and regain what was lost, for example in conservation sciences, in the process of history – such a survey is mandatory and fundamentally important. Understanding what was lost in the process of history in terms environmental conservation and management is important because otherwise it would be difficult or rather impossible to comprehend how the present conservation culture in many African societies came into being and what the trends are for the near and far future. Also, this makes the present text unique and different from many others in environmental studies that have started by examining say the causes of environmental problems of particular geographical locations without seeking to understand the histories behind the causes. Understanding histories of a problem helps us identifying the root cause of the problem and makes our efforts to devise appropriate ways of handling the problem much easier, hence I start by making reference to Molefi Kete Asante's famous book: "*The Egyptian philosophers: ancient African voices from Imhotep to Akhenaten*".

In his book, Asante (2000) notes that traditional Eurocentric thought assumes that Greece was the origin of civilization of all kind. He dispels this and other myths (of which the commonly held view that only science can solve environmental problems facing the world today is one) and

'dangerous' Eurocentric assumptions by demonstrating that there is a body of literature that preceded Greek philosophy and civilization in Africa. Asante, for instance, clearly documents how the great pyramids were built circa 2800 B.C., some more than two thousand one hundred years before Greek civilization. Similarly, Ackroyd (2004: 8, 17) records that there is ample evidence which suggest that the invention of writing and the civilization of Egypt emerged not out of nowhere, but the early Nile settlers themselves more than 3400 BCE well before the First Dynasty was founded in about 3100 BCE. The first use of the Egyptian hieroglyphs (holy signs/sacred symbols in Greek) was to list goods and the names of officials such as rulers and letters for religious texts, histories, stories and business letters. The first truly monumental stone building in the world is believed to be the one that the third Dynasty's second Pharaoh, Djoser, built in the desert region of Saqqara about 4500 years ago. The pyramid, built of six huge steps of stone placed one above the other is more than 60 m high and measured about 106 m and 122 m at the bottom (see Ackroyd 2004: 19). I should add, here, that the civilization of Africa was not only centred on Egypt but many other regions of the continent such as Eastern, Western, Central and Southern Africa. This is confirmed by Herbert Wendt cited in Jackson (1970), who notes this of Zimbabwe: 'The dynasty of the 'Rulers of the Mines' was a Negro one. Its culture, customs, civilization, clearly resembles those of Egypt. ... Marriage between royal brothers and sisters, the princesses' complete freedom in love, the sacrifices of first fruits – these are the only few parallels between Egypt and the Shona kingdom ...The connections between the Nile and Zambezi are so striking, between the land of Punt and the mining of the later

Zimbabwe, are so numerous that it is difficult to discount the Egyptian contacts with southern Africa'.

Asante as with Ackroyd, further, dispels the popular myth of Hippocrates being the father of medicine by pointing out the fact that Hippocrates studied the works of Imhotep, the true father of medicine, and mentioned his name in his Hippocratic Oath. Asante goes on to mention eleven famous African scholars who preceded Greek philosophers namely: Ptahhotep, Kagemni, Duauf, Amenhotep, Amenemope, Imhotep, Amenemhat, Merikare, Sehotepibre, Khunanup, and Akhenaten. Unfortunately, these scholars' ideas are rarely mentioned in those philosophy texts studied in African countries where the scholars were born and bred. Even many of those who studied history and the history of philosophy are not acquainted with these names, regardless of the fact that most of their philosophies were later picked up and expropriated by philosophers from Greece and the West in general during their visits in Egypt and the other parts of Africa. Yet some of the ancient Western philosophers give personal testimonies alluding to the fact that their philosophies/ideas were greatly borrowed from Africa. In his *Metaphysics* (1.1981b, 14-24), Aristotle (see Ross 1924), for example, clearly testifies and recognizes the Egyptian origin of the philosophical sciences of astronomy, mathematics and geometry. Surprisingly, Western twentieth-century scholars like the American Catholic clergyman, Father Copleston, denies even those personal and first hand literary testimonies of the ancient Greek philosophers. This means that even today, Western philosophy and indeed scholarship, continues to be executed using the false and mythical logic that Africans are not wholly and truly as rational as the Westerners. This is evident in the dominance of Western science (over other

knowledge forms) and scholarship in many parts of the world.

While the above is generally true especially for disciplines such as philosophy, natural sciences, political science, and history in many schools and universities in Africa in terms of their curricular, the same is true for environmental studies and conservation sciences. In Africa, the subject of environmental studies has been heavily contested in the last few decades in many countries. Surprisingly, the monumental studies on the subject have focused on the post-independence period in Africa such that there is a dearth of literature on environmental conservation on the pre-colonial period. There is a gap or discontinuity in environmental studies between pre-colonial and post-colonial Africa. There is no doubt about this discontinuity because such courses as '*History of Environment Conservation in Pre-colonial Africa,'* are rare if ever they exist in African universities particularly in Departments of Geography and/or Environmental Sciences. This betrays students who are curious to know environmental conservation methodologies and strategies that were used in pre-colonial Africa. In countries such as Zimbabwe, Mozambique, and Malawi, for example, insignificant attention has been devoted to examining the environmental conservation strategies that were used in the past, especially in pre-colonial 'uncontaminated' Africa. It is my contention, therefore, that African history of environmental conservation is an essential for students in environmental sciences as it would always remind them and future generations of the wisdom and various ways through which our ancestors thought, lived, understood and related with their surrounding others. Until today, I remain unanswered as to why such courses as the one mentioned above are still absent in African

universities many years after the official end of colonial imperialism in Africa. Yet, there is ample evidence as can be drawn from the age of civilization in Africa (as has been given by scholars such as Asante and Ackroyd, among others) and others on conservation in Africa (such as Mukamuri 1995; Sheridan and Nyamweru 2008; Mapara 2009, among others) that in pre-colonial Africa a number of environment conservation strategies heretofore referred to as conservation strategies were used to considerable success to conserve the environment before hegemonic western scientific strategies were imposed [on Africa] by the colonial governments and later on adopted by post-independence governments across the continent.

In this book, an attempt is made to critically examine the traditional or indigenous environmental conservation strategies that were used during the pre-colonial period in Africa in terms of their effectiveness and possibilities for complementing modern conservation efforts. This must be emphasised because environmental studies on Africa are largely cursed by a narrow focus on what I have described elsewhere as "the root cause of the causes" of environment degradation, rather than on those systemic aspects of European imperialism that foster inequality, racism, division of culture and nature and consequently environmental degradation. Without knowing what European imperialism left behind in terms of the problems related to conservation and management of natural resources, we lose sight of how and under what conditions the current systems of conservation in many African countries today were developed. The choice of Africa as a case study for this book, thus, is premised on the fact that it is one continent that suffered colonialism and continues to use the western-based

conservation strategies in many of its conservation projects; it therefore represents many others in similar situations across the world.

It is of utmost importance to underscore that while this book makes an attempt to look at conservation in pre-colonial Africa through the colonial period to the present time; more emphasis is given to some countries and historical epochs than others. This owes to the reason that, the situation that different African countries encountered during colonialism and afterwards are somehow similar, differing mainly in degree. Also, I should emphasize that the main thesis of this book is that while scientific conservation strategies adopted by most of post-independence governments on the continent cannot be underestimated, these strategies could have been more successful if they integrated the traditional [local] conservation strategies that were used in pre-colonial Africa. To this end, the book advances the argument that the despising and disuse of traditional environment conservation strategies by advocators of scientific conservation strategies, especially most of the African governments, have done more harm than good to the continent's conservation efforts: the relegation of traditional conservation strategies as unscientific and backward has betrayed environmental studies and in particular conservation projects in Africa as a whole.

Following the preceding discussion and taking my argument to another level, I should underline that there is lack of sustainability in many contemporary African environment conservation projects. The 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 the natural

environment in sustainable development thus cannot be under-estimated. Yet, where there is environmental crisis, as evident in many African countries such as South Africa, Zimbabwe and Mozambique, among others, we can hardly talk of sustainable development.

It is worth noting that the field of sustainable development can be conceptually broken into three constituents 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 criticised 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 African governments such as that of Zimbabwe's National Environmental Policy and Strategies (ZNEPS) (2009) for being silent on some species in the natural environment and for disregarding indigenous conservation practices. To make my point clearer here, I will discuss, though briefly, the shortcomings of ZNEPS.

The government of Zimbabwe (as represented by ZNEPS) through its disregard of traditional conservation strategies such as *ubuntu/unhu*, other traditional conservation epistemologies 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) leaving out other important species in the environment such as insects can be considered an accomplice in land degradation and the environment

conservation crisis in Zimbabwe. The adoption of scientific methodologies/strategies as sole responses to environmental problems in the country, for example, has comprised the rural communities' capacity to manage and conserve their environs. In light of this observation the present study argues for a sustainable dialogue between different knowledge forms as well as between the environmental, economical, socio-political and cultural systems in order to ensure that sustainable development is achieved. With regard to sustainable dialogue between knowledge forms in environment conservation, this implies a situation where traditional environmental conservation strategies complement or work in collaboration with scientific environment conservation strategies. There is no doubt that such an integrative 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, through the continued existence and even extension of environmental problems, that Western 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 in the country and beyond.

In tackling all the highlighted conservational issues, this book is divided into two parts: part one and two. Part one focuses on the history of environment conservation in pre-

colonial and colonial Africa. The second half of the book does not by any means abandon the theoretical frame of environment conservation that occupy part one. What I am interested in this section and the whole book, to put it schematically, are therefore the following questions: How conservation in pre-colonial Africa looked like? What is the connection (if indeed there is one) between conservation during pre-colonial and post-independence Africa? As such, part two of this book continues to develop and explore these questions, but on different terrain and scale, by making an attempt to offer possible solutions to the conservational problems that Africa and the world over is facing today. To the questions, different perspectives that are African oriented are proffered. These perspectives are drawn from the book's central argument that African environment conservation problems can best be solved by solutions that are African-based and not the Eurocentric conservation epistemologies and models that are currently used in many African countries.

It has previously been highlighted that while the book focuses on conservation in Africa in general, more emphasis, examples and case studies are given to some countries than others, especially Egypt and those countries in the sub-Saharan region. This does not, however, undermine the value of this book given that the history of conservation in most parts of Africa followed almost similar trajectories, perhaps only with differences in terms of some factors, details and circumstances.

On account of these reasons and what I have paraded in this introduction, I have been compelled to handle the subject matter of this book with a frequency of repetition of some of the case studies, examples and even words because it is the method of the African philosophy of *ubuntu/unhu*, to

use common principles to explain several different phenomena including issues of environmental conservation and management. Also, simply because it is partly the objective of this book to establish the African environmental conservation ethic, this cannot be satisfactorily done without frequency repetition of some words, case studies, and examples as presented in this volume.

While I cannot prophesy that this study will answer all questions about conservation in pre-colonial Africa, I remain hopeful that the facts and interpretation that follow will make a significant contribution towards the reinforcement of my arguments that environmental problems that the world is facing today can possibly be lessened or even eradicated if science and other knowledge forms make an effort to complement each other, and that the current environmental problems in Africa can only be fully understood if their root causes are carefully unravelled and understood in the context or if reconstruction of the nature of environmental conservation and management before the coming of Europeans to Africa – pre-European African conservation – is well understood.

Part I

Chapter 1

Pre-colonial Environmental Conservation and Management Strategies in Africa: A Brief Overview

Introduction

It is an undeniable historical fact that with the advent of colonialism and the influence of Western 'civilization' in Africa, the Africans' daily practices, knowledge systems, values, needs, relationships with the environment, experiences and way of life in general were significantly transformed. Surprisingly, although several scholars have explored environmental management and conservation problems in Africa, they have ignored to study how colonialism impacted on environment related issues, and to argue for the reinstitution of Africa's indigenous philosophies such as *ubuntu/unhu* [or *hunhu*] in environmental conservation and management issues in present day Africa. Despite the fact that European imperialists used the discourses of modernity, commerce and civilization (among others) to dominate Africa, Western scientific knowledge was also used to dislodge African societies' environment conservation and management systems through subjugation and domination. The period of subjugation and domination of the African continent by Europe started in the late 15th century and reached its climax during the late 19th century. During this period, conservation and management methodologies and strategies of the indigenous African peoples were despised, suppressed and dominated by those of the European settlers

who perceived themselves as superior to Africans in all positive respects. Thus, though it is widely agreed that pre-colonial Africans were civilized (in their own respect) many years before the advent of colonialism and were indeed great environment care givers who lived at peace with other beings in the environment they shared, few scholars have captured such big realities. Notable of these scholars is H. N. Hemans (1935: 121-2), a Native Commissioner in colonial Rhodesia who in describing the environmental friendly agricultural practices of the Tonga people inhabiting the Zambezi valley commented: "After the Zambezi valley has been down in flood, which is generally in May, and directly the waters start to subside, the fresh alluvium is assiduously cultivated and followed down foot by foot to the usual water level. Here they plant principally tobacco and maize, the former being as a rule planted first. Each family has its own allotment neatly fenced off with reeds ... in fact a famine on the Zambezi is almost unknown".

Similar observations (particularly those to do with African civilization) have been recorded by scholars such as Nemavhandu (2002) and Molefi K. Asante (2000). In his book, *The philosophers of Egypt*..., Asante, for example, notes that some more than 2100 years before civilization in Greece, Africans in Egypt and many other nations of the Nile and the Great Lakes of the region were already engaged in the creative genius of astronomy, philosophy, religion, mathematics, rhetoric, agriculture, engineering, law, architecture, physical training, art, music, geology, logic, liberal arts and medicine. This is echoed by Nemavhandu (2002: 2) who argues that "the Greek plagiarism of African science, philosophy and religion can be proven beyond any reasonable doubt" as Egypt was the greatest educational

centre in the ancient world. This entails that the claim by many Eurocentric historians and anthropologists that Africa was a dark continent whose civilisation and sense of environmental conservation were brought about by the West are examples of this plagiarism and misrepresentation of Africa. In fact, some well-known Western philosophers like Pythagoras, Euclid and Aristotle, among others, obtained most of their knowledge from Egypt's Sacred Mystery Schools which in fact were the first universities known to the human race. These schools included the Grand Lodge of Luxor (Waart) which was built by Pharaoh Amonithes III in Thebes city which was located along the River Nile banks. This was one of the greatest schools in the world were great men and women were never considered properly educated unless they passed through this academy. The claim that civilisation, including the notion of sustainable environmental conservation, was brought to Africa by Europe despises logic given that the first civilized Europeans were Greeks who themselves were civilized by Africans. Nemavhandu (ibid: 5) captures this well when he argues: 'The first civilized Europeans were the Greeks, who were chiefly civilised by the Africans of the Nile valley. The Greeks transmitted this culture to the Romans, who finally lost it, bringing on a dark age of five hundred years. Civilisation was restored to Europe when another group of Africans, the Moors, brought this dark age to an end'.

I should underscore the point that the indigenous peoples of Africa shared almost the same culture, religion and philosophy from the North to the South and from the East to the West of the continent. This suggests that some parts of the South, East and West of the continent got civilized at almost the same pace and time with Egypt. The origins of the

empire of Ghana, for example, date back to the fifth century A.D. though it reached its peak between the ninth and eleventh centuries. The same applies to Mali which had its prime in the thirteenth and fourteenth centuries. The concentration of dry stone walls in modern Zimbabwe which were constructed some thousands of years ago is also a testimony to the fact that other parts of Africa developed at almost the same time and pace with Egypt well before the advent of colonialism [in Africa] or even contact with the Europeans. This is one reason that Zimbabwe bears the evolution of the term "Zimbabwe Type Site". Zimbabwe Type site is a term that is used in archaeology to refer to particular styles of walling in Iron Age stone wall ruins (Mawere *et al* 2013). There are over 300 dry stone walls in southern Africa but they are mostly concentrated on the Zimbabwean plateau including Great Zimbabwe Monument (Mawere *et al* 2013; see also Garlake 1982, 1992). Other researchers have confirmed the claim that people of Africa shared a similar culture, philosophy of life, technology and religion: 'History and archaeology show that there has been in Africa a civilisation that extended from Egypt to Angola, from Timbuktu to Angola. This civilization consisted of a complex of cultures which in their structure shows a marvellous formal and thematic uniformity to be observed in their literature and mythologies' (Mabona, cited in Carruthers, 1984).

Writing about agriculture in pre-colonial east Africa, in particular Tanzania, Kimambo (1996: 71) details that specialised agriculture through irrigation, manuring/soil fertilization and terracing in areas such as Usambara, Upare and Kilimanjaro highlands of north-eastern Tanzania started a long time before colonialism, and hunger in these areas was

a rare phenomenon. The deployment of these specialised field techniques – irrigation, manuring and terracing – were not a result of population increase in East Africa but to ensure two or three annual harvests as there were dry seasons in the highlands, although they were not as severe as in the lowlands.

Similar reports were made by the Archaeologist, Thomas Huffman (2000: 14), in his description of Mapungubwe of southern Africa: 'Mapungubwe is the most important pre-colonial farming site in South Africa. ... This complex society evolved between AD 1000 and 1300 at the sites of K2 and Mapungubwe in the Shashe-Limpopo Valley ... The Zimbabwe culture sequence can now be divided into three periods, each named after important capitals: Mapungubwe (AD 1220 to 1290), Great Zimbabwe (AD 1290 to 1450) and Khami (AD 1450 to 1820)'.

While it is widely agreed by scholars that Africa is the oldest and first continent in the world to become civilized in almost all respects, this was distorted with forces such as slavery and colonialism that underdeveloped not only the material wealth of Africa but 'stole' away the intellects of its people (see also Rodney 1972). The effects of colonialism on Africa, thus, 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 solely Western scientific conservation models being considered with traditional environment conservation methods being relegated and despised as unscientific. In this chapter, I argue that there is nothing wrong for the indigenous Africans to use Western environment conservation models as long as they are

applicable and helpful to their situations. What is wrong, however, is despising conservation methodologies simply because they are African or Western oriented. To this end, the thesis advanced in this chapter is that there is need to complement the Western conservation models with the 'local' models enshrined in indigenous knowledge systems (IKSs) or local area knowledge. This is fundamentally important if we are 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 Western 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 in the universe they share. The approach adopted in this book, thus, is opposed to the Western worldview where until recently, Western virtue ethics has never recognized nature-focused virtues (see also Fairbanks 2010). For Fairbanks, a failure by the West to recognise nature-focused virtues is not surprising given that Western philosophies and religions have promoted the idea that humans are separate from and superior to nature and that there are no moral principles regulating our relationship to nature.

It is against this background that the present study seeks to criticize the Western modernistic division of nature and society or unequal relationships between nature and culture and most importantly between indigenous conservation epistemologies and Western scientific conservation strategies 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 other beings 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 environmental 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/industrialised 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 on the continent (Mawere, 2010).

In light of the above observations, this chapter 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' environmental conservation strategies that were used in pre-colonial Zimbabwe are explored and their implications elaborated. The chapter gives as its conclusion that a comprehensive integrated approach that involves the integration of Western 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 marginalised 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 the decolonisation of the African mind especially in the areas of language and literature, although the thinking can be extended to most areas to do with the restoration of African identities and dignities (and of those who colonised 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) and in particular indigenous conservation epistemologies. This owes to the fact that traditional environmental 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; see also Mapara 2009).

I should add that in this chapter (and of course the whole book), I do not understand indigenous knowledge to be derogatory and static or to be equal to immovable knowledge as scholars like Hountondji (1997) Turnbull (2000) would respectively argue. Contrary to these two scholars, I argue that the term indigenous knowledge is never derogatory if understood from an African perspective: it is only from the perspective of the colonialist or those who still believe in the superiority of the Western culture over cultures of other societies that the term indigenous knowledge can be understood to be derogatory. Also, I think to argue that indigenous knowledge is static and immovable as Hountondji and Turnbull respectively argue is to assume that African societies themselves have never been interacting before the advent of colonialism: to assume that African societies were bound. In my sense, this is a misnomer or rather opprobrious. The point is since time immemorial in Africa, indigenous knowledge has always been refined and transferred as well as shared among different societies. Thus, while societies acknowledged the source of the knowledge (e.g. the people who started with it), they were not barred from using the knowledge and even from modifying it if they deemed it necessary. The underlying point, however, remained that the knowledge was borrowed from society X or P. In the society where I grew up, for example, my mother used to say: *"Iyi imba ndeyerudzi rwevanhu vechiNdevere"* (This hut is of the style of the Ndebele huts). By saying this, my mother was acknowledging that indigenous knowledge is not static.

Neither is it immovable as the building style my mother was referring to was borrowed from that of the Ndebele people who lived some hundreds of miles away. For the reason I give here, I prefer using the term indigenous knowledge to endogenous knowledge (as used by Hountondji 1997 and Turnbull 2000).

To further clarify what indigenous knowledge entails, I make reference to the two definitions given above by Altieri and Sedac. These two definitions of IKS connote that indigenous knowledge is intergenerational, that is, it is passed on (orally or by traditional practices) to future generations by those who hold it; hence it is not static and immovable. 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: "Do 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 book, 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 harmonise 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 they advocate for the use of local, as opposed to foreign, knowledge while at the same time giving room for integration and assimilation. For the Shona people (of Zimbabwe), the deployment of IKS in the face of environmental 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 harmonise societies as well as resuscitate the pejoratively damaged image (by colonialism and western science) of formerly colonised societies such as Zimbabwe.

Taking stock of environmental conservation strategies used in pre-colonial Africa: A special focus on pre-colonial Zimbabwe

Unlike in most modern African societies where expert Western science is officially used as the sole agent for environmental conservation, pre-colonial Africa 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 in Africa. But before examining each of the strategies, perhaps important to note is the point that inside all these conservation strategies is a thread *ubuntu/unhu* – a philosophy of humanness that embraces unity, love, harmony and peace with each other and other beings in the environment – that runs through from one end to another. This is in spite of the fact that *ubuntu*

itself was used by indigenous Africans as an environmental conservation strategy among many other uses.

It is of utmost importance to underline that while all the aforementioned traditional conservation strategies were a common place in most if not all pre-colonial African societies, more examples shall be drawn from southern African societies such as Zimbabwe and central Mozambique (particularly the central western provinces of Sofala and Manica). This owes to the reason that these are the societies I am conversant with through contact and research. Besides, they generally share a common cultural and linguistic background.

Taboos

Environmental 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, environmental 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 chapter, I go beyond Tatira to argue that taboos were not only sanctions to correct behaviour 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 behaviour, 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 perpetrators – those who upset the environment.

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 bad behaviour 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 pool will dry up. In the Shona culture, it is considered cruelty to kill an animal you do not eat. That is why the Shona coined the proverb, *'Mwoni unenge wenyoka inoruma chaisingadyi'* (Having the head [thinking like a snake] of a snake that bites even that which it does 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, the pangolin has always been one of the rare species that were feared would become 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 the 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 utilising 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 seems 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 overexploitation of community resources. In reality, 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 conservation approach to ensure sustainable use of resources in the environment that humans shared with all other beings. Technically, totemism is a form of identity/identity mark by a particular clan/group of people using totems of which a totem is a 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 eat elephant) are forbidden from eating the heart of any animal. The same applies to the *vaera zhou* (those that must not eat mutswiri/mudune). They are forbidden from eating mudune. In the case of the part of an animal or human body, there are some people whose totem is a human being's body part. The Gumbo and Gushungo quickly come to mind. Gumbo is male genitalia, while Gushungo is female, hence the statement, '*Vanoti kusimuka vohwirire vhu*' (Who when they stand eat sand/soil). 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 (what I call other 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.

Folklore/*Ngano*

Folktales (*ngano* in Shona) are stories in most cases told to young children from about five to eleven years of age, although adult persons are not forbidden from listening to the stories, and also there were certain circumstances when they could be told to an adult audience only. The stories are often fictitious but created to offer a wide range of lessons to the young children who believe in the stories and indeed have societal values inculcated in their [children] moral fabric through the stories. The stories are normally told by an elderly and well experienced person of reputable character in the village. This is usually an old woman (grandma/aunt) although in some cases an old man (*sekuru*) was also a story teller.

In a typical Shona traditional culture, as in many other African traditional cultures, '*ngano'* were told in winter and at night when the activity did not disturb normal chores/activities of the time. To tell *ngano*, both *sarungano* (the story teller) and *vateereri* (listeners/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 her 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 (see also Mawere 2012). To educate the young through '*ngano*,' the villains are never cherished but always punished in these stories (see also Duri and Mapara 2007; Mawere 2012). The lessons concerned many aspects of life including knowledge about how the environment – space surrounding humans – should be cared for, conserved and exploited to ensure the continued thriving of resources. For example, a person who had the habit of felling trees indiscriminately can be punished in the story by death in which a tree fell over him/her. Children thus would grow up knowing that the habit of cutting down trees indiscriminately is not cherished in their society. It is this way that *ngano* were used as traditional environment conservation strategies in pre-colonial Africa.

Ubuntu/Unhu

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 cuts through all spheres of the indigenous people of Africa; unlike many Western-oriented theories, it is applicable in all contexts and life situations including the conservation and management of the environment. In linguistic terms, however, the concept is traceable to the so-called Bantu

languages in general, although historically it is popularised by the Nguni, particularly the Ndebele and the 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); hence the terms *ubuntu* and *unhu* shall be used interchangeably in this book. Yet, the central question remains: 'What is it that is referred to as *unhu*, and how did it influence environment conservation in pre-colonial Africa?'

As espoused by Ramose (1999), the philosophy of *ubuntu* 'consists of the principles of sharing and caring for one another' (pp. 192), including strangers and the natural environment. Commenting on the importance of the philosophy of humanness of the African people of Mali, Ibn Battuta who spent a year in ancient Mali, reported that Malians are the most trustworthy, just and peace-loving people he has ever met as they were faithful even to the properties of the Arab travellers who died on their land such that they never confiscated the properties but handed them to the most trustworthy of the Arab people until the rightful heir possesses them (see Molefi Asante 1994). *Ubuntu*, thus, 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. Chivaura (2006: 232) makes this clear when he explains: "*Hunhu/Ubuntu* is the ability to control overpowering urges in one's physical being. The –*nhu* in *hu-nhu* or –*ntu* in *ubu-ntu* refers to one's physical existence as a thing with no values attached. *Hu* – and *Ubu* – indicate [moral] values. People who lack *hu* – or *ubu* –

attached to them are mere *–nhus /– ntus* or things. *Havana hunhu*, in Shona: They have no human content".

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 environmental conservation projects.

This is aptly echoed by Ramose (1999) who notes that African philosophy based on '*ubuntu'* is a philosophy of humanness, 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 the philosophy of *ubuntu* in environmental conservation projects in Africa was therefore more pronounced during the pre-colonial period as the moral dimension was also extended to the natural environment, politics, religion and economics; the philosophy was used to encourage sustainable use, respect of all beings (human and nonhuman) and 'good' relations of man with his natural environment.

To emphasize my point above, I argue that parallels can be drawn between *ubuntu*, taboos explained above and admonitions of the *maat* (MA'AT). Just to trace the history of

MA'AT whose principles cohere with those of *unhu/ubuntu*, it is believed that the Admonitions of the MA'AT were written approximately 1, 500 years before the discovery of the Christian Ten Commandments (see Lesole 2002; Koka 2002; Broodryk 2002). In fact, analysis shows that the Biblical Ten Commandments were deduced from the Admonitions of the MA'AT. The MA'AT Admonitions were virtues enshrined in the philosophy of life of the original African people. As such, besides civilisation which I argue in this book that it started in Africa before it spread to the West, Africa is credited for providing the world with a philosophy whose principles are based on the MA'AT. I should argue, further, that the MA'AT and/or *ubuntu/unhu's* contribution even to the Bill of Human Rights which the entire world respects today is beyond reasonable doubt. Also, the principles of the MA'AT like those of *ubuntu/unhu* are applicable to all facets of life including business, morality, medicine, natural environment, education, governance and so on. Perhaps we may want to know what the MA'AT was and its principles were like. As given by Lesole (2002), MA'AT (Maat) is an ancient Kemetic (Egyptian) deity that explains the key elements and principles of human perfection. The African philosopher, Kgalushi Koka (1996: 10) tells us that the holy Netchar Maat was associated with seven cardinal virtues key to human perfection namely: harmony, balance, truth, justice, propriety, order and reciprocity. It is from these cardinal virtues that forty-two Admonitions of MA'AT were constructed to act as guidelines for correct moral behaviour. These were:

1. I have not done iniquity [injustice or sin].
2. I have not robbed with violence.
3. I have not stolen.

4. I have not murdered or bid anyone to slay on my behalf.

5. I have not spoken lies.

6. I have not plundered the Netcher/God.

7. I have not diminished obligations.

8. I have not defrauded offerings.

9. I have not snatched away food.

10. I have not transgressed.

11. I have not dealt deceitfully.

12. I have not caused shedding of tears.

13. I have not committed fornication.

14. I have not caused pain.

15. I have not acted guilefully.

16. I have not wasted food.

17. I have not been angry and wrathful except for a just cause.

18. I have not set my lips in motion against any person.

19. I have not been an eavesdropper.

20. I have not defiled the wife of any man.

21. I have not polluted myself or my purity.

22. I have not caused terror.

23. I have not stooped my ears against the words of Right and Truth.

24. I have not evilly slaughtered the animals.

25. I have not filched the food of the infant

26. I have not sinned against the Netchar of my native tow.

27. I have not plundered the offerings to the blessed dead.

28. I have not defrauded offerings of the Netchar/God.

29. I have never cursed the Netchar/God.

30. I have not spoken scornfully or behaved with ignorance.
31. I have never fouled the water.
32. I have never cursed the king.
33. I have done neither harm nor ill.
34. I have not multiplied words exceedingly.
35. I have not acted with insolence.
36. I have not worked grief.
37. I have not stirred up strife.
38. I have not judged hastily.
39. I have not polluted the earth.
40. I have not done which is abominable.
41. I have not cursed.
42. I have not laid waste to the land (see Bandele, 1992).

As can be seen, the MA'AT, like *ubuntu/unhu* has an all-encompassing ethic – can be applied to all spheres of life. To environmental conservation which is the focus of this book, for example, principles 1, 16, 24, 33, 39, 40, and 42 directly relate to the natural environment, among other spheres of life.

Also, like *ubuntu*, the MA'AT emphasizes that the environing wholeness is primary to human individuality (Ramose 1999) given that it underscores co-existence, mutual understanding, interaction as well as acceptance of obligations between the whole society (greater environment) and an individual to each other and to the natural environment, but with the aspirations and needs of the community coming before those of the individual. The MA'AT, as with other indigenous conservation strategies, explained above, thus, are enough to bear witness to the fact that pre-colonial Africa

had an environmental ethic that promoted sustainability between the natural environment, economic and social life.

As a matter of conclusion to this chapter, I underline that this chapter has revealed the fact that Africa is in fact still being haunted by "the ghost of Anglo-European hegemony" (Brackette Williams 1989). Yet, though indigenous knowledge systems have been despised and pejoratively labelled 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, I have underscored that the environment conservation problems in Africa 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 – what I call multiple environment knowledges- especially those that were once marginalised by Western science. Overall, this study is a bold step towards "generative dialogue" of different knowledge forms, and environment conservation reforms in African societies such as Zimbabwe, among others.

Chapter 2

Environment conservation in Africa: From the Dawn of Colonialism

Introduction

During the colonial era in Africa, many societies saw their pre-colonial indigenous environment conservation and management systems distorted and in many other cases relegated as backward and unscientific. Though in varying degrees, this kind of experience was encountered in all African societies that experienced colonialism, and was executed through conquest and subjugation by European imperialists. Mukamuri (1995: iii) aptly captures this when he notes that 'historical interviews and records clearly demonstrate that communal life has never been sustainable since the dawn of colonialism. ... The communal system has always been disturbed and challenged by colonial state's latifundialization, pauperisation and declined standards of livelihood'. The relegation of indigenous conservation and management of systems and the replacement of these with foreign – European – systems thus were not without effects to the rural population of Africa. In many areas, poverty among the rural population deepened and land degradation set in. Writing on Community-Based Natural Resource Management (CBNRM) in Southern Africa, Stephen Turner (2000: 3) confirms that:

> *During the colonial era, many African societies had their indigenous systems and structures of common property resource*

management disrupted, perverted or destroyed by externally imposed administrations. South Africa experienced extreme forms of this interference. Indigenous political structures were perverted to ensure that chiefs did not foment opposition to the colonial regime; and indigenous resource management systems were overridden by 'betterment' land use planning programmes to conform to European norms of sustainability and spatial structure.

While different African societies' indigenous environment conservation and management systems were affected differently, the underlying fact is that their conservation and management systems, besides their lives in general, were negatively affected (from the African indigenous peoples' perspective). Turner (2000a: 3-4) confirms this when he, further, notes that in South Africa, because "government is understandably nervous about land tenure reform in the communal areas, which it has not yet undertaken, communal area livelihoods and resource use drift on; poverty deepens; and resource degradation continues; and 'rural development' is conspicuous by its absence". I should add that this is not only unique to South Africa as in many formerly Colonised African countries the issue of land and resource distribution is still topical and unresolved. In the case of South Africa, not only poverty was deepened in the rural areas, but the whole range of systems – political, social, economic, and environmental etc. were disrupted. Magubane (1973: 137) aptly captures this when he argues that 'the imposition of colonial rule disrupted the historical continuity of African societies. The natural roots and origins of their development were distorted; their economy, technology and culture were undermined and left in a truncated state. The elements which structured their philosophy of life, their art, literature and the

family structure were ridiculed and reduced to a marginal relevance and thus lost their ability to renew themselves'.

The argument by Magubane entails that imperialism in Africa did not only impoverish the indigenous people but also destroyed their philosophy of life, creative power, besides their socio-economic and political systems: imperialism in Africa was social, cultural, economic –political and environmental. This calls for the need for Africa to trace back where its conservation and management systems, reclaim and reinstitute them to easy the tapestry of the environment problems that trouble the continent; hence the importance of this chapter as is the book.

The impact of colonialism on African cultures

Environment conservation in Africa is deeply embedded in culture. For this reason, we cannot meaningfully talk of environmental conservation in Africa without also addressing issues of culture. This is because with the advent of colonialism in Africa, all African cultures were affected in one way or another; hence the need to briefly look at the impact of colonialism on the African cultures. Bernard M. Magubane (1979) makes the same point when he cites Perry Anderson who argues: 'The conversion of the native population represents, even if only symbolically, its incorporation into the mental and cultural universe of the white. It thus has the value, even to the most atheist and anti-clerical (colonial) administration, of initiating the process of disciplined adaptation to European cultural norms [now presented as godly]. Christianity in colonial areas is a domestication of the indigenous population: objectively it breaks the Africans into European thought and mores; subjectively, it frees the

European of his terrors of the African by including him within the same cannon as himself'.

I should emphasise that the conversion of some people of Africa legitimised the European conquest given that in pre-colonial Africa, political authority was subservient to religious authority: in the case of the Shona of Zimbabwe, for example, a king was legitimised by the ancestors through a *svikiro* (spirit-medium). It was not through votes or declaration by anyone who wanted to rule/lead the people. This is not to say that African ancestral cultures were no better or worse than other cultures in the world. The point is all cultures should be judged from their own perspective and not the perspective of other cultures as what European imperialists did when they colonized and settled in Africa.

With its individualistic tendencies rooted from the modernistic philosophy that the present is separate and free from the past, colonialism destroyed the whole social fabric of the African peoples that was communitarian in nature. As Rodney (1972: 36) noted:

> *In Africa, before the fifteenth century, the predominant principle of social relations was that of family and kinship associated with communalism. Every member of an African society had his position defined in terms of relatives on his mother's side and on his father's side. Some societies placed greater importance on matrilineal ties and others on patrilineal ties. Those things were crucial to the daily existence of a member of an African society, because land (the major means of production) was owned by groups such as the family or clan – the head of which were parents and those yet unborn.*

There was, therefore, a direct link between the past, present and future in African philosophy of life such that

even elderly people, the unborn, and those who passed on to the world beyond – ancestors – were highly regarded. Describing the role played by older people in traditional African societies, Nhongo (2004:1) observed that: 'Traditionally, their role was to advise, direct and lead their families and societies in those practices, rituals and ceremonies that ensured their survival, existence and continuity. They were involved in the socialization of society and ensured the attainment and passing on of society's knowledge, values and norms'. Elderly people, thus, were associated with wisdom and wealthy of life experiences such that whenever they spoke, their words were never taken for granted. This is captured in some of the Shona proverbs: '*Miromo yavakuru haiwiri pasi* (lit Words from an old person cannot be taken for granted) and Ndebele proverb: *Ilizwi lomdala kalitshayi phansi* (The word of an old person can never fail)'. In Africa, therefore, wisdom has always been revered and is mostly associated with experience i.e. the more one is experienced the more one is likely to be wiser; hence the association of wisdom with age.

Similarly, in Lesotho and South Africa, respect is one of the underpinnings of Nguni (and Sotho) groupings. This is because in the traditional Nguni and Sotho (as many other traditional Africans elsewhere), communitarianism, good relationships with others, and respect of the elders are highly regarded as the basis for peace, harmony and good life. As Ntuli (2000: 33) observed of the traditional Nguni and Sotho people: 'Respect among the Nguni is held with such great esteem that children are taught from a tender age to avoid the use of what is regarded as impolite words or unacceptable ways which when used might be regarded as disrespectful to others especially the elderly people'.

Similarly, Jomo Kenyatta (1965: 180) commends on the traditional Africans, particularly Kenyans: 'Individualism and self-seeking were ruled out. The personal pronoun "I" was used very rarely in public assemblies. The spirit of collectivism was (so) much ingrained in the mind of the people'. This means that African societies were highly organised and cherished unity, togetherness and harmony as opposed to individualism and egocentrism. Rodney (1972: 37, emphasis original) captures this aptly when he says of many African societies that: 'Having been produced on land that was family property and through family labour [as opposed to capitalism and feudalism], the resultant crops and other goods were distributed on the basis of kinship ties. If a man's crops were destroyed by some sudden calamity, relatives in his own villages helped him. If the whole community was in distress, people moved to live with their kinsmen in another area where food was not scarce. In Akan country (Ghana), the clan system was highly organized, so that a man from Brong could visit Fante hundreds of miles away and receive food and hospitality from a complete stranger who happened to be of his own clan'.

Yet, with the advent of colonialism in Africa, cultural imperialism was implanted resulting in tremendous changes [negative] to the cultures of the indigenous people. In many societies, communalism, for example, was replaced by capitalism that was imposed on them by the European imperialists. Free men were replaced by slaves to give way to cheap labour for the European elites. On the same note, collectivism was replaced by individualism such that the spirit of unity, harmony and togetherness that prevailed in pre-colonial Africa became history to its own people. Many [negative] cultural changes, thus, were witnessed with the

advent of colonialism in Africa although many European anthropologists and ethnologists who have studied African societies especially during pre-colonial and colonial periods have done so largely from a racist and biased [towards Europe] point of view. In Mozambique, for example, since colonialism television channels mainly from the West and Americas (particularly Portugal and Brazil) have dominated media to the extent that local programmes (or Mozambican-based programmes) were replaced by the foreign programmes which are sometimes violent [culturally]. This way significant damage has been done to the Mozambican culture as elsewhere in Africa. Elsewhere, I have observed and noted with concern how the mass media has since colonialism impacted [negatively] the Mozambican culture when I say: 'Mass media [in Mozambique] have consistently represented the interests of, and functioned as an integral component of the elites [from Portugal and Brazil who own most of the television channels in the country) controlling society and determining policy and events. Yet it is the traditional values and customs shun by most television channels in the country that distinguish Mozambicans from people of other countries. ... It is apparent, therefore, that more harm than good is being done to the Mozambican culture' (Mawere 2010: 160). I have observed of the same society, further, that:

> *Other traditional social structures, customs and values are fast disappearing from the scene. Communication which often took a wonderful musical tone especially in the communication of literature, political and socio-economic works is dying away. The religious and epistemological roles of the traditional folktales have been down-played while their didactic and moral aspects have been, however, overtaken by mass media. Folktales were passed down generations*

verbally by a storyteller who usually was an old man or an old woman past child bearing age. Mozambican traditional culture upholds these octogenarians as custodians of wisdom and knowledge. The advent of television however, has made this rather obsolete. The traditions of village theatre and dance, folklore and story-telling thus are now history in the Mozambican culture. These were used as forms of entertainment and education (to impact good moral values that would prepare them for adult ritualistic society) in the youth' (Mawere 2010: 155).

From the foregoing discussion and observations, there is no doubt, especially from an African cultural point of view, that the impact of colonialism on Africa was tremendous and in most cases violent; colonialism transformed social/cultural, economic and political relations among Africans in a largely negative manner. As argued by Baokye-Boaten (2010:104) 'Africa has undergone tremendous transformations since its contact with Europeans and other foreign cultural elements. Africa emerged from this contact with a bruised cultural identity and the philosophy of the oppressed'. Through colonialism and its dominance over the African peoples, Africa lost its full cultural identity, philosophy of life and environmental ethic besides the spirit of communalism that used to guide African social, political and economic relations. The Western imperialism in Africa, despised the fact that all human beings have a culture and natural desire to know, and that all cultures in the world have always had their own forms of knowledge of which science is one. Confirming this line of thinking, scholars like Olukoshi and Nyamnjoh (2011: 3) argue that colonialism was biased towards, 'Eurocentric rationalist, modernist development theories that dismiss any active role to African peoples' genuine local cultures such that

it produced knowledge ... with ambitions of dominance". To reinforce their argument, Olukoshi and Nyamnjoh (ibid: 20), further, argue that, "Western style science has the tendency to create an inferior or incompetent other knowledge forms so as better to reinforce its own hegemonic role'. No wonder why distinguished Western philosophers and fabricators of the ideas of African inferiority like David Hume, Immanuel Kant, Lucien Levy-Bruhl and Georg W. F. Hegel popularised the myth that African people are less human, therefore, irrational and inferior to the European races. In his *Observations on the feeling of the beautiful and the sublime*, Kant (tr John Goldthwait 1960: 110-111), though is known in the history of philosophy to have never left his country and native city of Konigsberg, unequivocally claims: 'The Negroes of Africa have by nature no feeling that rises above the trifling. Mr Hume challenges anyone to cite a single example in which a Negro has shown talents, and asserts that among the hundreds of thousands of blacks who are transported elsewhere from their countries, although many of them have been set free, still not a single one was ever found who presented anything great in art or science or any other praise-worthy quality, even though among the whites some continually rise aloft from the lowest rabble, and through superior gifts earn respect in the world. So fundamental is the difference between these two races of man, and it appears to be as great in regard to mental capacities as colour'.

Though Kant (ibid: 12-16) did not only castigate the 'Negroes of Africa,' but all other non-European peoples such as Arabs, Persians, Chinese, Indians, 'savages' of North America and Japanese, he elaborated much on the former [Negroes of Africa] whom he indeed put at the bottom of all

other races for the reason that 'they are quite black from head to foot'.

Similarly, Moya Deacon (2002: 105) commenting on the Colonial Administrators and Catholic Church in Congo during the time of Father Placide Tempels had this to say: 'The Colonial Administrators of the Congo and the Catholic Church were of the opinion that neither relevant principles nor ideas were contained in African culture. In fact, African culture was distinguished as being vastly inferior to European categories, and thus having no relevance, whatsoever, in the 'modern' world'.

Also of similar thinking was Hegel. In his *Lectures on the philosophy of world history*, Hegel (1989:177) depended heavily on Herodotus and missionaries' outdated reports to describe Africans as utterly inferior (to European race) and pre-logical/irrational and thus he writes: 'The characteristic feature of the Negroes is that their consciousness has not yet reached an awareness of any substantial objectivity – for example, of God or the law – in which the will of man could participate and in which he could become aware of his own being. The African, in his undifferentiated and concentrated unity, has not yet succeeded in making this distinction between himself as an individual and his essential universality, so that he knows nothing of an absolute being which is other and higher than his own self'.

Further writing particularly about sub-Saharan Africa, Hegel (ibid: 176) had this to say: 'In this main portion of Africa ... history is in fact out of the question such that life does not depend on reason but a succession of contingent happenings and surprises. No aim or state exists whose development could be followed'. In view of Hegel's mythical thinking and in support of the Olukoshi and Nyamnjoh's

argument explicated above, I argue that what Hegel says is the intellectual servitude on which Western domination thrive even today and should be resisted or rather rejected for humanity to achieve collective imaginations, genuine freedom, to redeem lost dignity, regain self-identity, and move beyond the rhetoric of human equality and equity. I therefore support Paul Nizan (1971: 31, emphasis original) in his critique of Eurocentrism when he avers:

> *Philosophy has this universal mission; a mission based on the assumption that mind guides the world. Consequently, they [i.e. Western philosophers like Kant, Hegel, Levy-Bruhl etc.] think they are doing a great deal for the terrestrial species to which they belong – they are the mind of this species. The time has come to put them [i.e. Western philosophers] on the spot, to ask them what they think about war, colonialism, the speed-up in industry, deepening global environmental crisis, love, suicide, unemployment, politics, abortions – in a word, all the things that really occupy the minds of this planet's inhabitants. The time has definitely come to ask them where they stand. They must no longer be allowed to fool people, to play a double game.*

This would reverse what Olukoshi and Nyamnjoh (2011: 4) call 'a system of social knowledge production into which Africans have been co-opted and schooled as passive consumers without voice even on matters pertaining to their very own realities and existence'. I thus agree with Olukoshi and Nyamnjoh (ibid: 20) when they argue that 'the future of lasting peaceful co-existence in the world and the re-balanced ecosystem may depend, in part, on the geo-cultural emancipation of plural local knowledge modes and forms'. I should add that I consider this to be our [academics and all

others] responsibility to the present and future generations – to ensure that universal freedom is acquired. In fact the West should desist from its imperialistic tendencies of assuming that science is the sole and universal knowledge form – there are many knowledge forms [multiple knowledge] other than science. Such imperialistic tendencies as that of the West should never be tolerated anymore. For if the future is to be indeed a joint, shared future, as Edward Blyden (1895) has aptly observed in his *Race and study,* then it is undoubtedly necessary to call for the return of the African people to their glorious and harmonious past. Blyden (1895 : 4-8) thus writes: 'For each one of you – for each one of us – there is a special duty to accomplish, a terribly necessary and important job, a job for the race to which we belong. There is a responsibility that our personality, our belonging to this race, presupposes. The duty of every individual and every race is to struggle for its own individuality, to maintain it and develop it. Therefore honour and love your race for yourselves if you are for yourselves, for if you abdicate your personality, you will not have left anything to give to the world. Neither will you be happy nor for any use, and you will have nothing to attract and fascinate other people because with the suppression of your individuality you will also lose your distinctive character. You will also realise then that having abdicated your personality your personality you will also have lost the special duty and glory to which you are called. In truth you will be denying the divine idea – God – and sacrificing the divine individuality; this is the worst type of suicide'.

It should be underscored in view of Blyden's words above that Western imperialism in Africa did not only affect the African peoples' cultures. Many other institutions and philosophies of life including the indigenous people's

environment conservation epistemologies were negatively affected (though of course with some few positives as shall explained in this chapter). In the next section, I focus on the move from traditional conservation to scientific conservation as a result of colonialism.

From traditional conservation to scientific conservation: A brief history

As has been pointed out earlier in chapter one of this book, environmental conservation is not a new phenomenon in post-independence African countries. Neither is it a product of colonialism or the so-called Western civilisation as there has always African environmental conservation ethic embedded in the African people's religion, culture and philosophy of life. Pre-colonial Africans' conservation was based on the belief that nature and society (humans) were not separate categories as modern scientists/conservationists would think. Humans, thus, could co-exist, and co-relate with nature in such a way that allowed them (humans) permission to exploit nature but mitigated and guided by religion, traditional policy, customs and cultural beliefs. Though it is difficult to describe with precision conservation in the pre-colonial period in Africa due to dearth of literature, historians and anthropologists, among other scholars, have emphasized the close relationship between social organization and the natural environment especially that in pre-colonial Africa, indigenous people were living at peace with their bio-physical environment. Pointing out that in pre-colonial Africa phenomena such as environment conservation, among others, were enshrined in African religion, John Mbiti (1975: 19), had this to say: 'African religion is a dynamic

phenomenon found in all aspects of Africans' lives, in their activities, which include occasions like the birth of a child, the giving of names, circumcision, marriage, funerals, harvesting festivals, praying for rain, protecting the natural environment, and many others'.

In another book, Mbiti (1969: 2) makes the same point when he writes: 'In Africa, because traditional religions permeate all the departments of life (including conservation of the natural environment), there is no formal distinction between the sacred and the secular, between the religious and the non-religious, between the spiritual and the material areas of life. Wherever the African is, there is his religion: he carries it to the field where he is sowing seeds or harvesting a new crop (or hunting animals in the bush); he takes it with him to the beer party or to attend a funeral ceremony'.

On a similar note, Magubane (1973:134) notes with concern that: 'Colonisation and imperialism brought about the decay of the institutions of African peoples – that is, whatever institutional and cultural forms existed prior to colonial rule and conquest became either inoperative, even if the forms were retained, or started a process of decay. These decaying or inoperative institutions were used by the colonizer to manipulate the people. Secondly, colonisation brought about social isolation; it sealed off African communities one from another and it sealed off their relationship with their environment by confining them in reservations. This forced isolation would lead to atrophy'. In addition, the creation of colonial boundaries further separated related people and cultures.

Murombedzi (2003) also details that in the area of wildlife in pre-colonial Africa, ample evidence exists to demonstrate that because of technological limitations, indigenous hunter

gatherers did not adversely affect the populations especially of big game. And, although meat constituted an important part of local diets, and wildlife products constituted important commodities, trading did not deplete existing wildlife populations. This means that by the time European hunter gatherers like Henry Morton Stanley and missionaries like Robert Moffat and David Livingstone arrived to Africa (southern Africa), they reported that the region was teaming with wildlife, that the forests were dense and unscathed, and that the landscape was generally pristine - that is with minimal disturbance. Nhira and Fortman (1992), Sheridan and Nyamweru (2008), Mapara 2009, and Mawere and Kadenge (2010) also mention other traditional ways, including the setting up of sacred groves, and rituals and myths – taboos – that were used by indigenous communities to manage their resources. As noted by Binsbergen (1979: 56), in pre-colonial period, 'wild' places were important foci of religious activities if they were somehow prominent in the landscape such that 'hills, pools, imposing trees, caves, streams, falls and rapids became associated with invisible entities, and thus became objects of veneration'. These included *njuzu* (half fish half human creatures/mermen or mermaids) and *mhondoro* (lion spirits) which in most cases manifested in the form of animals such as lion but sometimes leopards. Schoffeleers (1979) makes a similar point that religion offers a vast array of conservation practices that were used in pre-colonial Africa. In his words, 'the prevalent idiom used by central African societies for the articulation and application of their earth philosophies is religion' (p. 2). Indigenous conservation systems such as *ubuntu/unhu* – an African philosophy of humanness – were also in common place as they were part

and parcel of the African people's religion, philosophy of life and culture.

The forced removal of Africans (from their land) and separation from nature (part of their biophysical surrounding such as wildlife) through various colonial land policies as witnessed in Zimbabwe, Mozambique, South Africa, Malawi and others, meant that all social institutions that supported conservation were greatly disturbed. The co-existence between animals and indigenous people, for example, was disrupted. As Dzingirai and Breen (2004: 1) noted, 'from colonization onwards, indigenous people [in the African continent] began relating to wildlife in a predatory way'. Dzingirai and Breen (2004) concur with Moyana (1984), Moyo (1995) and Child (1995) who argue that Africans behaved differently (from what they did during the pre-colonial era) during colonialism simply because the land for protected areas and white agriculture was taken from them, often with coercion, denying them (the owners of the land) access to natural resources which naturally belonged to them. For Dzingirai and Breen (2004: 2), 'it is likely that the indigenous people's longing to eliminate protected resources and to populate the landscape with land-uses practices benefiting the household rather than government, intensified in response to the dramatized injustice'. Elsewhere, I have corroborated this line of thinking when I say: 'In many African countries, including Mozambique, such inequalities and 'dramatized injustice' thus resulted in the 'indigenous' people changing their attitudes towards natural resources and the environment. The philosophy and/or attitude that resulted from the inequalities and injustices instigated by the white settlers were that of resisting efforts by conservation organizations even after independence. This was simply

because the attainment of independence by many African countries did not result in the automatic regain of their lost land. In many countries, the black majority continued cultivating the infertile soils while the white minority who remained after independence continued using vast fertile lands they had gained during colonialism' (Mawere 2013: 2).

As can be deduced from the quote above, it is far from the truth that social injustice between the White settlers and original people of the African land ended with the so-called political independence of the African states. In Namibia and South Africa, for example, the white settlers remained with the greater part of the land. In Zimbabwe, until the so-called farm invasion in 1999/2000, the larger portion of fertile land was owned by the White minority. This unfair distribution of land, in no doubt, had negative impacts on the natural environment as the majority of the Africans were made to continue overcrowding in already stressed environments thereby exerting pressure to the [natural] environment.

It is of utmost importance to emphasize that before colonialism in many African societies, people lived in harmony with their surroundings. In Zimbabwe, South Africa, and Mozambique, among other African societies, tradition makes it clear that people had their developed government systems headed by Kings and Chiefs and supported by the councillors and headmen, who all respected the natural environment. The natural environment was considered common property and was sustainably managed through the wise deployment of indigenous knowledge systems especially the philosophy of *ubuntu/unhu* 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 other beings found in the environment or nature in general. What then went wrong with these traditional environment conservation strategies?

With the advent of colonialism in Africa, all traditional government systems were despised and relegated as backward/primitive, unreasonable and disorganised. This was merely because Europeans judged the differences between them and the Africans as deficiencies on the part of the latter. Similarly, the Europeans judged the order of the Africans as disorder, their (Africans) logic as illogical, science as superstition, and so on. With the advent of colonialism in the late 1880s in Zimbabwe, for example, all the IKSs alongside their customary laws traditionally used to conserve the natural environment were castigated, and the indigenous Zimbabweans were subjugated socially, economically, politically and in a sense psychologically such that even their traditional conservation epistemologies were thwarted. There is no doubt that such a way of doing by the European settlers was in accord and/or influence of Kant's (1963: 24, first published in 1784 cited in Coetzee and Roux 2002: 60-70) racialist philosophical thinking in which he bluntly says: 'If

one starts with Greek history ... If one follows the influence of Greek history on the Roman state, then the Roman influence on the barbarians ... if one adds episodes from the national histories of other peoples insofar as they are known from the history of the enlightened [European] nations, one will discover a regular progress in the constitution of states on our continent which will probably give law, eventually, to all the others'.

The above quote from Kant clearly shows the imperialistic tendencies of the European colonialists, not only on issues of politics but also other spheres of life such as conservation of the environment. And, the European settlers [on Africa] did bestow the law [including environmental laws] by means of violent hegemony and subjugation, and not through negotiation and peace. Yet if it is assumed that what is good for the goose is good for the gander, then, we have a serious problem. This thinking, no doubt, was the beginning of the spreading of European globalisation, which many people, today, are deceived and sometimes forced to believe it is real globalisation when in fact it is the European culture and way of doing things imposed on others [non-European peoples].

Focusing on one of the formerly colonised African states, Zimbabwe, for example, it is worth noting that 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, for establishing a formal management infrastructure for their research, implementation, and for supporting through extension services, as is claimed by some scholars, this government had two major drawbacks on the national environment conservation project.

First, it created pressure on resources through its brutish 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 formalised 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 paralysed 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.

Besides, in the African region as a whole, wildlife conservation was disrupted. There is amble evidence that pre-

colonial conservation epistemologies have been despised and subjugated by colonial scientific conservation practices. As noted by Murombedzi (2003) and Adams (2003), while a significant number of contemporary protected areas in southern Africa were protected under one pre-colonial regime or other such as Central Kalahari Game Reserve, Moremi Game Reserve and Chief's Island in Botswana; Mavhuradonha, Matopos, and Gonarezhou National Parks in Zimbabwe, Tsidilo Hills, Mamili National Park, and Salambala in Namibia; Hluhluwe, Umfolozi National Parks in South Africa, the imposition of colonial conservation regimes on these landscapes led top conscious efforts to obliterate these pre-existing land uses and their long term impacts.

This disturbance did not only occur in wildlife conservation but other forms of agricultural practices – like subsistence farming – by the local people. In African societies such as Mozambique and South Africa, for example, during the Portuguese and British (as well as Dutch) conquest, the local people lost their land to the settlers as the former were made to overcrowd in those areas with poor soils and which received low annual rainfall. The effects of the removal of the original sons and daughters of the soil to areas with harsh climatic conditions were similar with those explained above, perhaps with little variations.

Making reference to Malawi, Schoffeleers (1979: 4), notes that cults also played an important role in determining settlement patterns, environmental conservation, population movements and the acceptance or non-acceptance of immigrants in pre-colonial Africa. Schoffeleers gives an example of the Mbona cult's (of Malawi) reaction to the perennial flooding of the marshlands of the lower Shire Valley in the late 1930s to exert pressure on the population

when it emigrated to relieve pressure on the land. Thus with increased colonial control on the African soils, territorial cults came under various challenges, which eventually led to their breakdown. These challenges included:

- Land expropriation and wage labour which drastically changed the structure of social organization;
- Christianity, which questioned the religious bases of the cults;
- The colonial administration itself; the rationalist interpretations of ecology in the form of land conservation and animal husbandry;
- The bureaucratization of the chieftainship which weakened political support for the cults.

As a consequence of these pressures, by the 1950s, the territorial cults had greatly diminished in importance (Schoffeleers, 1979; see also Murombedzi 2003) such that land degradation began to set in.

It is of utmost importance to emphasise that Africans had always a sense of environmental conservation before the advent of colonialism such that they responded accordingly to the threat by early European hunters by setting more game reserves and allowing hunting only to those Europeans issued out with permits. As detailed by Masona (1987) and Mackenzie (1988), in response to the destruction of wildlife by the early European adventurer hunter gatherers, some African rulers set up rudimentary management systems in an effort to save wild animals from extinction. King Mzilikazi of the Ndebele State to the west of modern day Zimbabwe, for example, introduced a permit system for all European hunter gatherers in his kingdom with which gifts and other presents

were given to the king in return for permission to hunt in his territory. Also, the hunting Shangaans of the South Eastern lowveld of Zimbabwe set up a royal wildlife preserve in the area around present the day Gonarezhou National Park (Nduku 1987). Besides, the African kings also levied a percentage of the spoils of the hunt by early European hunters and gatherers as payment for the permission granted. In Zimbabwe, this system came to an end when the White settlers conquered the indigenous peoples, forcing them to overcrowd on infertile lands thereby exerting pressures on natural resources or the natural environment in general.

Scientific Conservation Strategies: Some Lessons Learnt

Some Positive Lessons?

As argued by scholars such as Aylen (1941) and Bowyer-Bower (1996), the colonial government in Rhodesia (now Zimbabwe) can be praised for suggesting the need for legislating and use of some monitoring techniques and conservation measures and, for establishing a formal natural resource management infrastructure for their research, implementation, and support through extension services. Yet the need for legislating and use of some conservation measures was a result of what Adams (2003) noted when he said colonialism can be seen as an outworking of bureaucratic rationalisation. According to Adams' (2003: 22) analysis, this rationality has four dimensions, all of which were features of colonial governments namely:

- The development of science and technology and its deployment to manipulate nature
- The expansion of the capitalist economy

- Formal hierarchical organization (the creation of executive government, transforming social action into rationally organised action)
- The elaboration of a formal legal system.

It is in view of these dimensions that MacKenzie (1988a, 1988b) details that as time went on, Europeans like the indigenous people, also begun to show their concern with the decreasing number of some flora and fauna species. As this was threatening humanity's (in particular White settlers) interests, the Europeans had to separate nature and society/humanity and use science as a mechanism to restructure nature and re-order it to serve their own needs and desires, hence conservation and science developed alongside each other (see Adams 2003). MacKenzie (1988a: 21), thus, has this to say: 'As these processes [of wildlife destruction by European hunter-gatherers] accelerated in the latter nineteenth century, it was not just the Africans who found it increasingly difficult to gain access to the faunal resource ... By this time whites had become acutely aware of the decline of big game stocks. Two species, the blaaubok and the quagga, had become extinct while others no longer survived in vast tracts of Southern Africa where formerly they had been abundant'.

It is in fact during this time (when some species were becoming extinct) that the White settlers begun to promote the setting up of game reserves, land uses they had destroyed when they conquered the indigenous people. I, therefore, argue in this chapter that while Aylen (1941) and Bowyer-Bower (1996)'s claims might be true in a sense, the colonial regime still had some major drawbacks on environment

conservation in the country – the drawbacks exceedingly outweigh the positives.

Negative Lessons from Colonialism and its Scientific Conservation Strategies

First, it created pressure on resources through its Land Tenure Act of 1930 whose resource allocation were furthered by the Land Tenure Act of 1969 (Vudzijena, 1998) – systems which took away land from the majority and gave it to the minority. This mounted pressure on the environment in the countryside thereby compromising conservational capabilities of the rural communities as well as their agricultural production. This is confirmed by Hill and Katerere (n.d.), Phimister (1974) and Mackenzie (1970) who generally argue that the wanton undercutting of African peasant production through the Land Tenure Act was sowing the seeds of underdevelopment in the reserves of Rhodesia (now Zimbabwe) besides it undermining resource conservation in the reserves. Hill and Katerere (n.d: 252) who studied land distribution in Matabeleland province of Zimbabwe, for example, reports that 'inequitable land distribution forced people in communal areas to subsist through overexploitation of resources, leading to resource degradation and ultimately enormous insecurity as livelihoods became threatened'. Similarly, Ribot (1999) and Mandondo (2000) noted that colonial natural resource management policies had resulted in over-centralisation because they were designed in the context of conquest and subjugation. This is confirmed by Adams (2003: 22) who argues, "the colonial period saw a distinctive pattern of engagement with nature: a destructive, utilitarian and cornucopian view of the feasibility of yoking nature to economic gain". No wonder why it is now generally agreed

that Europeans didn't only colonise humans [in Africa] but also nature (see Plumwood 2003; MacKenzi 1991; Anderson and Grove 1987).

Secondly, the colonial government instead of seeking ways to integrate productively "indigenous"/ local people's ways of knowing and modern scientific ways of knowing in the national conservation project, it despised and relegated as unscientific and backward all conservation practices based on indigenous practices and thinking. It failed to realise that in indigenous practices and philosophy of life were knowledge forms that people in the subaltern (Mignolo 2000) had used successfully for centuries in conserving their 'natural' environment to administer social harmony between humans and all other beings in the environment (Mawere and Kadenge 2010; Mawere 2013). With the advent of (formal) science in Zimbabwe with its nature/culture dichotomies, the "holistic" understanding of the environment was lost. Some species which the locals considered valuable like edible insects, for example, were judged less important by humans [in particular the European settlers] who saw themselves as both owners and controllers of nature. Besides, the white settlers didn't see, as the local/indigenous Africans did, the importance of some flora and fauna species especially those that they did not use; hence were not accorded priority in the colonial government's conservation agenda.

Third, the colonial government operating on the basis of reason which it denied not only the people of Africa but all other beings they shared the universe with, Descartes' famous dictum "I think, therefore, I exist" was changed to "I think, therefore, I conquer and enslave". On the basis of this exclusive claim to reason, the white settlers in Zimbabwe believed that the competences of their reason was not only to

colonise and enslave Africans, but to conquer nature to advance human needs, desires and interests. As aptly captured by Popkin (1974: 128-9) in view of colonialists in Africa: 'Nature was to be investigated in order to use it to improve the quality of human life. There could be no other option since the conquest of nature was necessary response to the urge to survive individually and collectively. Any advancement designed to improve the chances of survival came to be called progress. Sustained progress growing in depth and complexity came to be known as civilisation'.

Wolmer (2007: 68) concurs that the colonial perceptions of landscape was the fixing of landscape to a particular binary vision of wilderness which must be either preserved in its pristine state or eradicated to serve human productive needs. Fixed landscapes such as natural regions (i.e. natural region 1, 2, 3 etc.) were thus created in the name of land-use planning. Yet before the advent of Europeans with their different conception of landscape – fixed landscape – the Africans in the southeast lowveld of Zimbabwe, known as the Bahlengwe/Shangaan, divided agriculture between opportunistic shifting cultivation of dry lands and permanent cultivation of wetlands and riverbanks/riverine agriculture or gardening. Riverine gardening relieved the people from the risks of famine in the lowveld area where due to uncertain climate bumper harvests could on average be expected only once every three or four years. It is therefore through this mental framework in the colonialists that humans [in particular Africans] were for the first time in their living history separated from nature through brute force, but in the name of the creation of separate space for conservation. Such a division resulted in the overexploitation of 'nature' as humans competed to gain the most out of the spoils. For

example, in the case of Zimbabwe, some animal species begun to be extinct up until in Loot Committee was set in 1895 to deal with 'lootings' or overexploitation of some 'resources' by white settlers themselves. This is confirmed by scholars such as Turner (2000b: 39-40) who argues: 'The idea of setting aside areas exclusively for nature, regulating all human access to these areas and banning all resource extraction from them came to the African continent with colonialism. In South Africa, as further north, early European settlers and adventurers slaughtered wildlife on an unprecedented scale. There is a bitter irony in the way in which, after wildlife populations had been decimated, the colonial regime decided to give privileged treatment to the remaining animals by creating special protected areas for them. This commonly involved the forced removal of local African populations out of the new nature reserves to resettlement sites elsewhere. By regulating access and prohibiting hunting and other resource use in these areas, the regime criminalised the indigenous African subsistence uses that had posed no threat to nature before the settlers arrived'.

No wonder why I argue that the divide between nature and culture which has increasingly become the centre of current debates in conservation sciences and environmental anthropology the world-over is nothing but a western construct/creation that in fact was unknown to Africa – it is a European burden being transferred to Africa to deal with it as if she [Africa] was ever an accomplice in its construction. Africans comingled, mingled and related with their other beings in a special way that did not draw such a solid line as the nature/culture divide.

To conclude this chapter, I highlight that since colonialism in Africa, conservation on the continent took a

new direction which the indigenous people of Africa never imagined or dreamt of. The people of Africa were in many places displaced and forced to overcrowd in what used to be called African Tribal Lands and/or reserves. Also, the traditional environment conservation strategies that were used in pre-colonial Africa to conserve the environment were looked down upon and relegated to the periphery as they were believed to be unscientific, irrational and backward. Instead, scientific conservation strategies were adopted by the colonial governments in many parts of Africa. On one hand, the overcrowding of the people in one place exerted unimagined pressures on land and other resources such that degradation set in. On the other hand, the institution of scientific conservation methodologies and the relegation of traditional conservation methodologies negatively affected the whole terrain of conservation on the African continent. Thus, overall, colonialism in Africa brought more harm than good to the environment conservation in the continent.

Part II

Chapter 3

Re-theorizing the environment conservation debate in Africa: A closer look at Zimbabwe

Introduction

The discourse on "environmental conservation" is highly dynamic and has swirled controversies of epic proportions in conservation sciences, environmental anthropology and knowledge studies. Given the muddled nature of conservation, coupled with the varying interpretations evoked by the deployment of the concept across different disciplines, a more vigorous conceptualization of the notion calls into question its practical manifestations and application in particular situated contexts – particularly within the conservation sciences and environmental anthropology. In Zimbabwe, conservation by the state has tended to favour and privilege Western scientific models at the expense of the "indigenous" conservation practices of local people, as informed by their indigenous epistemologies. This chapter thus represents an attempt to rethink conservation in Zimbabwe, adopting the Norumedzo Communal Area in south-eastern Zimbabwe as its case study. The choice of Norumedzo is based on the fact that this is one area where the highly esteemed and delicious insects, *harurwa* (edible stink bugs, *Encosternum delegorguei*) are found. As a result of these insects being valued as social "actors" and the appreciation shown to both the Western and endogenous epistemologies, conservation in the area has enjoyed considerable success. To this end, this chapter lends support

to the arguments of Walter Mignolo (2000) and Ramon Grosfoguel (2006a, 2006b) in their advocacy for critical border thinking in issues of knowledge regarding environmental conservation.

Background to conservation debates in Zimbabwe

Zimbabwe is currently suffering from a myriad of environmental conservation problems, in addition to destabilising economic and political entanglements. As a result, environmental sustainability and thus sustainable development has become too difficult a practice to implement in the country. Nigerian Institute of Social and Economic Research (NISER) (2009) asserts that sustainable development can be conceptually understood as having three constituent but overlapping parts: environmental, economic and social-political. Several United Nations texts (the 2005 World Summit Outcome Document in particular) refer to economic, social and environmental protection as the "interdependent and mutually reinforcing pillars" of sustainable development.

Yet balancing the conservation of nature's resources with the needs for development has always been problematic in southern Africa, particularly in Zimbabwe. This has been due to the compound effect of different factors, such as the unfair distribution of resources, an obsession with Western scientism, the disregard of endogenous epistemologies; population increase, low education levels and abject poverty (see Mawere 2013). These issues have collectively precipitated the conservation debate in Zimbabwe. Discussing the actual cause(s) of the environmental crisis in Zimbabwe thus has resulted in serious contestations amongst scholars, with some

arguing that overpopulation and indigenous practices have triggered environmental degradation. Aylen (1941), for example, claimed that during pre-colonial times and the earlier part of the colonial period, human land use had little detrimental impact on the environment in Zimbabwe because of the extensive nomadic and fallow practices used, which could well provide for the relatively low population densities, as well as being due to the employment of indigenous soil conservation measures. According to Bowyer-Bower (1996), a Western science-based awareness of the causes and effects of land degradation through inappropriate use and management – and the subsequent need for appropriate monitoring techniques and conservation measures – has been well established and legislated for in Zimbabwe since the twentieth century, resulting in a formal management infrastructure for the research, implementation and support of land use guidelines. It could therefore be argued that Bowyer-Bower and Aylen would view the environmental conservation crisis in Zimbabwe as the combined result of population growth and the resistance of local communities to the implementation of Western conservation techniques.

Other scholars (Moyo et al 1991; Phimister 1974; Mackenzie 1970; Iliffe 1990; Masaka 2011) blame science and colonialism for the country's conservation crisis. In this vein, Moyo et al (1991), for instance, argue that during pre-colonial times and the earlier part of the colonial period, land was neither a scarce resource, nor was it under threat of permanent environmental degradation, but with increasing colonial settlement and control, inequality of access to the natural resources was dictated. Moyo et al, thus, are against Aylen's (1941) view that during pre-colonial times and the earlier part of the colonial period, there was little detrimental

impact on the environment by human land use in Zimbabwe because of the extensive, nomadic and fallow land-use practices that provided well for the relatively low population densities. To support their argument, Moyo et al refer to the Land Apportionment Act of the 1930s that took away most of the fertile communal land from the majority and converted it into commercial farms for the minorities in the government of the time. This means that with an annual population growth rate in excess of 3.5 per cent (IUCN 1988) and a shrinking access to land, traditional conservation methods including fallow and extensive grazing became impractical in these communal areas, and land degradation set in.

Masaka similarly argues that the twin sisters, colonialism and Western science, are to blame for the conservation crisis in Zimbabwe. For Masaka (2011: 331) 'the colonisation of Zimbabwe and the rest of the African continent was predicated on a treacherous basis of trying to improve the lives of the people of Africa when in fact it spelt doom to the Africans and the resource dispossession that impoverished people that had managed to survive within their means prior to the advent of colonialism'. He maintains, further, on the basis of stereotypical images created by the colonialists such as the labelling of Africa as a dark continent, heart of darkness, a race of half devil and half children (Achebe 1958, 1975), only to mention but a few, that colonialism in Zimbabwe was predicated on the myth that the locals were not rational enough to be able to sustainably use the natural resources at their disposal. Thus for Masaka and other African scholars such as Mudimbe (1988) the creation of such stereotypical images culminated in the subsequent centuries, above all in the 18th and 19th centuries, with the categorising and labelling that eventually led to what Mudimbe calls "the

invention of Africa," that is, the systematic and systemic manufacturing of a continent on the basis of the Aristotelian paradigms of superiority versus inferiority, civilised versus uncivilised, among other epithets. Such characterisation of Africa by the West had drastic effects to conservation and agriculture as was practised by the indigenous people of Africa. In Zimbabwe as elsewhere in Africa, a top-down approach – as captured in Fox's model of "savage slot" – to agriculture and conservation were thus deployed. The slot was understood as a partial or simple model of the world in which values and meanings only diffuse in one direction, in this case, from the West to the rest of the world. According to Fox's savage slot, there are what we call official attitudes (in this case these were the attitudes of the European imperialists) and the rest, that is, those practices and attitudes by the rural populations of Africa. Thus according to Fox, most if not all encounters of the European imperialists and others (from of other continents like Africa) were organized (especially during colonialism) on the basis of the Europeans' view of themselves at the centre of everything i.e. with universal ideas and knowledge. This means that as far as Fox's savage slot, the West judged all others who in fact were supposed to emulate if at all they wanted to progress. In fact, according to the Europeans' mentality, basically starting from around 1515, 'the rest of the world comprised of elements which included savages, devils, wasteful and paradisiac individuals' (Fox 1991: 20) – elements which needed to be dealt with if at all the other cultures were to progress. This was used as the premise and justification for Europe's move to colonise Africa, among other continents. The West, thus, viewed itself as the observer, overseer and police of the whole world. This is aptly captured in Fox's "savage slot" below:

The West	The Rest
Observer	Observed other
Culture	Nature
History	Stories
Order	Savage/Disorder
Advanced	Backward
Modern	Traditional/barbarian
Civilized	Primitive/destructive
Enterprise	Peasant
State: Justice	Chaos
Prudent	Wasteful
Capitalist	Communist
	Paradisiac
	Illusory/irrational
	Evil

Figure 1: Adapted from Fox (1991: 20)

Basing on the savage slot, there is no doubt then that the European settlers found themselves as having no obligation whatsoever to listen and seek to understand the Africans' conservation epistemologies. Page and Page (1991: 5) confirm this when they say that the Europeans thought they had 'little or nothing to learn from native agriculture and the conservation methods they used'.

As can be seen, this discussion testifies to the debates between (formal) scientific conservationists and traditional conservationists. Yet in considering the trajectory of land contestations in Zimbabwe since the colonial period, one can safely argue that such fundamentalist perspectives do more harm than good with regard to the management and

conservation of the natural environment and, consequently, the development of Zimbabwe's agricultural sector – which is the backbone of the country's economy. Zimbabwe has experienced a cataclysmic meltdown of its economy and environmental conservation practices, especially since the turn of the millennium. During this period, the country has engaged in a politicisation of land that has resulted in widespread farm invasions and highly questionable economic and political decisions, especially in the years prior to the government of national unity (GNU) of 2008 onwards. It is my contention that decisions made by the government both before and after Zimbabwe's independence in 1980 have had a negative impact on the national environmental conservation project in a number of different ways. In fact, both the colonial and post-independence governments failed the environmental conservation project of Zimbabwe, albeit in different ways.

The colonial government in Rhodesia (now Zimbabwe) can be praised (though debatable) for suggesting the need for legislating and use of some monitoring techniques and conservation measures and, for establishing a formal natural resource management infrastructure for their research, implementation, and support through extension services. Nevertheless, this regime still had two major drawbacks on environmental conservation. First, it created pressure on resources through its Land Tenure Act of the 1930s which took away land from the majority and gave it to the minority. This mounted pressure on the environment in the countryside thereby compromising conservational capabilities of the rural communities as well as their agricultural production. This is confirmed by Phimister (1974), Mackenzie (1970) and Iliffe (1990) who argue that the wanton

undercutting of African peasant production through the Land Tenure Act was sowing the seeds of underdevelopment in the reserves of Rhodesia (now Zimbabwe) besides it undermining resource conservation in the reserves. Similarly, Ribot (1999) and Mandondo (2000) noted that colonial natural resource management policies had resulted in over-centralisation because they were designed in the context of conquest and subjugation.

Second, the colonial government instead of seeking ways to integrate productively "indigenous"/ local people's ways of knowing and modern scientific ways of knowing in the national conservation project, it despised and relegated as unscientific and backward all conservation practices based on indigenous practices and thinking. It failed to realise that in indigenous practices and philosophy of life were knowledge forms that people in the subaltern (Mignolo 2000) had used successfully for centuries in conserving their 'natural' environment to administer social harmony between humans and all other beings in the environment (Mawere and Kadenge 2010; Mawere 2013). With the advent of (formal) science in Zimbabwe with its nature/culture dichotomies, the "holistic" understanding of the environment was lost. Some species which the locals considered valuable like edible insects, for example, were judged less important by humans who saw themselves as both owners and controllers of nature, hence were not accorded priority in the colonial government's conservation agenda.

Upon independence in 1980, the Zimbabwean government appeared to commit itself to rectifying the problems left behind by the colonial regime. There seemed to be a paradigmatic shift from state-centred control towards alternative conservation and natural resource approaches in

which local people would play a central role (see Murphree 1991). In fact, in the 1980 "National Conservation Strategy," the post-independence government vowed to arrest the mounting land degradation and promote sustainable land management by publishing Zimbabwe's National Conservation Strategy through the Natural Resource Board, now the Environmental Management Agency (EMA). This was partly in response to the request for all nations by the World Conservation Strategy report of IUCN-UNEP-WWF, 1980. While this was a positive gesture towards the conservation of all species, the postcolonial government – like its colonial predecessor – failed the national conservation project for two key reasons. First, the post-colonial government employed Western science as the sole tool for environmental conservation, thereby continuing to relegate local eco-knowledge to the periphery of national environmental conservation projects. This stance resulted in the continued disregard of those species (e.g. forest insects) whose value and rights had not been acknowledged in the colonial government's environmental conservation project. Even the most recent Zimbabwe National Environmental Policy and Strategy (ZNEPS) is notably silent on the moral value and rights of the country's flora and fauna. Exclusively informed by science, ZNEPS thus discriminates against the other beings inhabiting the environment such as insects as it states: '… 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 …' (ZNEPS 2009:7). This current environment policy has no specific clause that provides for

the protection of forest insects. As documented in the quote above, insect species are not well recognised despite the invaluable contribution that most of these insects make to human livelihood, social life and the ecosystem as a whole. We can only assume that insects, together with other small organisms, are those being referred to here as the 'uncounted numbers of species in other groups.' Clearly, some fauna and flora are more equal than others! One wonders if some entities in the "natural" environment are thus not seen as deserving to live and be treated as other species or at least protected against human depredation. It also remains highly questionable to assume that the species not mentioned in the ZNEPS are in no way helpful to the natural environment or human lives. The ZNEPS has thus failed to acknowledge the role of endogenous epistemologies in conservation and to accord moral worth to other beings in the natural environment such as forest insects. Put differently, the ZNEPS is contrary to "traditional" conservation practices by many "local" or rural people (such as the Norumedzo community) where because fauna and flora are viewed as "companions" and "participants," they are socially and morally acknowledged as worthwhile entities.

The second reason is rooted from the post-independence government of Zimbabwe's embarking on farm invasions since around 1999/2000. The invasions being politically motivated were characterised by scandalous exploitation of resources and disrespect of other beings. They violated the rights of both humans (especially the White commercial farmers') and other beings, and exerted pressure on natural resources and/or the natural environment. In addition to violation of human rights and careless exploitation of natural resources, the invaders disregarded the value of indigenous

epistemologies and other social "actors" in conservation like forest insects. This led to environmental conservation meltdown in the country, and to an unimagined compromise on the locals' sources of livelihood; hence my argument that both the colonial and post-colonial governments are to blame for the conservation crisis in Zimbabwe.

Yet, this essay looks beyond the shortcomings of both the colonial and post-colonial governments and the contestations between "traditional conservationists" and "scientific conservationists" as it seeks to stress the importance of other social actors in the environment such as insects (for example *harurwa)* and find ways through which the environmental crisis in Zimbabwe and beyond can be resolved. In the next section, I therefore, discuss insects and the conservation discourse in Zimbabwe (from which southern Zimbabwe and in particular Norumedzo is drawn as the test case for this study).

Insects and conservation discourse

Though the practice of eating insects has been documented in nearly every part of the world (Durst 2010), the central place of some of these forest insects (e.g. *harurwa*) in forest conservation, social cohesion, economic networks and cultural preservation has not yet been sufficiently investigated in the case of Zimbabwe. Yet the *harurwa* represent a natural endowment for a vast majority of rural Zimbabweans living in the south-eastern part of the country (particularly in the Norumedzo area) due to their monetary, medicinal, nutritional, religious and cultural significance as well as their role in forest conservation. Raffles (2012: 3) acknowledges that insects have been under-researched and

under-estimated when he comments: 'Long before our time, there were insects. For as long as we have been here, they have been there too. Wherever we have travelled, they have been there too. And still, we do not know them very well, not even the ones we are closest to […]. Who are they, these beings so different from us and from each other? What do they do? What worlds do they make? What do we make of them? How do we live with them? How could we live with them differently?' *Harurwa* have thus far received little attention from scholars in Zimbabwe despite serving as a source of people's livelihood and having been (for several centuries now) a factor in forest conservation in south-eastern Zimbabwe.

The term "environment" has been defined differently across disciplines. In common usage, the term is often used as a synonym for "nature". This creates great conceptual confusion because the environment of a particular human group actually includes both cultural and biophysical elements (Rappaport 1979; Little 1999). This report thus uses the term as it is often used in environmental anthropology, namely to refer to 'an explicit, active concern with the relationship between human groups and their respective cultural and biophysical elements' (Little 1999: 254). For this reason, "natural environment' is taken to mean the land, water, flora and fauna assets that are utilised either directly or indirectly to provide means of survival for human populations" (Ellis 2000: 117). Such environments have two major categories of resources, namely those that can be utilised (normally) by the rural people through gathering and/or harvesting and those that are organised by human agency to produce managed outputs, as in pastoralism and farming systems (Ibid.). This report focuses mainly on the former, examining networks and

interactions between humans, the environment in general and insect species (*harurwa* in particular) (see Escobar 2008).

In south-eastern Zimbabwe and the Norumedzo area in particular the pivotal role of the *harurwa* in local environmental thought is evident in the deliberate interventions that have been instituted to protect the natural forests, which are also the natural habitats of these invaluable insects. The rural administrative authorities – that is chiefs and headmen of the Norumedzo area – have thus institutionalised the conservation of the natural forests to ensure the preservation of the Norumedzo *jiri* (forest/grove) and, in turn, the *harurwa*. Those who harm the *jiri* and/or exploit its resources without permission from the administrative authorities are reported by local *harurwa* policemen and subsequently tried and convicted by a traditional court. Those found guilty are fined an amount set according to the gravity of the crime.

The religious and cultural significance of the *harurwa* and *jiri* is accentuated by the wealth of endogenous knowledge and beliefs that exist around the natural preservation of this matrix (people, state, forests and *harurwa*) and; the mysterious and often contradictory accounts regarding the origins of the *harurwa* (Maredza 1985; Makuku 1993; Nyathi 2005). There are numerous folktales amongst rural Zimbabweans in the southeast concerning the "sacredness" of *jiri* – specifically the disruption of the balance of the natural ecosystem. Practices like deforestation, using obscenities in the forests, smoking in the forests, setting the forests alight and the unauthorised and/or excessive exploitation of the non-timber produce of the forests are associated with the angering of ancestors (Mawere 2011), which is believed to trigger misfortunes and have the potential to cause the extinction of the *harurwa*.

To unravel the complex nuances and subtleties that exist between humans, insects, forests and the state, attention should be paid to the economic flows, social interactions and networks in place between humans and *harurwa*, which illustrate how the latter help to conserve the ecosystem. This study thus offers an epistemological 'de-familiarisation' in that it questions the status quo. This allows us to understand the deep structural tensions and contradictions that exist in the current knowledge framework. It also helps us to avoid what Chimamanda Adichie (2009: 5) identifies as "the danger of a single story," whereby we "overlook the many other stories". This report examines how locally generated knowledge could be legitimised and harnessed for environmental good; deployed in the practise of "symmetrical anthropology" (Latour 1993, 1999) – a methodology that moves beyond the nature-culture divide and is open-ended; and used to advance a 'soft' post-humanities approach to conservation knowledge – an approach that 'refuses the division of the world into subjects and objects, that is, into humans and things or creatures' (Green 2011: 5). Soft post-humanities articulates and justifies the need for Zimbabwe's national conservation project to rethink the ways in which Western scientific conservation strategies and indigenous conservation epistemologies might be jointly utilised so as to sustainably enrich each other, thereby closing these theoretical and research gaps.

Rethinking conservation and knowledge studies: A quest for border thinking

The conservation contestations and crisis in Zimbabwe are centred around issues of knowledge and, in particular, the

kind of practices that can be successfully used to ease the tapestry of problems in which Zimbabwean conservation finds itself. Put differently, critical analysis of conservation debate in postcolonial Zimbabwe shows that at another level, the debate around conservation is a debate on knowledge, in particular a contestation between indigenous epistemologies/place-based knowledge (Gibson-Graham in Escobar 2008) and western science. This is a contest between indigenous epistemologies and local knowledge on the one hand and Western science on the other. While the state – through the ZNEPS – favours Western science in its conservation projects, so-called traditionalists advocate conservation strategies informed by indigenous epistemologies. There is no doubt that both the Zimbabwean state and traditionalists are fundamentalists: both want their respective positions exclusively considered at the expense of contrary views on conservation.

Under such circumstances, the conservation crisis in Zimbabwe will not be resolved unless the whole debate is reframed. To overcome this, I argue for border thinking (Mignolo 2000; Grosfoguel 2006a, 2006b, 2011) – or what Verran (2011) calls "generative dialogue" – which focuses on sustainable dialogue between diverse epistemologies and/or forms of knowledge, responding "to both hegemonic and marginal fundamentalisms" (Grosfoguel 2011: 2). This approach goes beyond the rigid binary system (Losonczy 1993; Escobar 2008: 116) of conservation fundamentalists, a polarisation that established such divisions as nature versus culture and science versus indigenous knowledge. Highlighting that such dichotomies limit our conservation knowledge and make us vulnerable to the "danger of a single story," I argue that inasmuch as science alone has failed to

solve Zimbabwe's environmental conservation crisis, indigenous epistemologies are also bound to fail if they are used to the exclusion of science.

On the one hand, the global environmental crisis we are facing today is a result of science's failure to deal with all the problems related to environmental conservation, including the lack of commitment to focus on the conservation of species like the *harurwa*. On the other hand, in many of those rural areas where the community members rely solely on indigenous epistemologies, cases of deforestation and other environmental malpractices have also been reported (Mawere 2010). The failure of both endogenous conservation epistemologies and expert science conservation methodologies – when used in isolation from each other – shows that there is a need for conservationists from both camps to be equally critical of the two perspectives and to discover ways in which to integrate the two to promote sustainable conservation.

The Norumedzo conservation case cited here uses both expert science conservation methodologies (enacted via the scientifically trained environment monitors deployed in the Norumedzo area) and indigenous epistemologies (enforced by local people through traditional leaders such as chiefs and headmen) in the conservation of the Norumedzo *jiri*. This resonates with Escobar's (2008) argument that there is a need for the global (a science which sees itself as universal) and the local (indigenous epistemologies) to work hand-in-hand, in order to generate the interest of and mutually strengthen all participants in conservation. This could form the basis of alternative conservation frameworks. This understanding argues for a dialogue between diverse critical epistemologies towards a pluriversal – as opposed to a universal – world

(Grosfoguel 2011), as is required if we are to successfully deal with the environmental problems that the world is currently facing.

To conclude this chapter, I should underscore that the challenges that we face today regarding environmental conservation and the pressures on biodiversity can best be addressed with the close coupling of approaches from both scientific and indigenous epistemological systems. An undisciplined response is required in the rethinking of conservation and knowledge studies. However, as Shepherd and Haber (2012: 2) argue, "in order to discuss undisciplined responses and modes of scholarship, we need to originate a vocabulary and a set of ideas, and in order to do this we need to take a short detour through a case study drawn from our own research on the history of ideas associated with the discipline [of anthropology]". In light of this, I have considered and presented here how the Norumedzo case study is ideal for bolstering the argument that conservation research and intervention should integrate this new comprehensive perspective of undisciplinarity and border thinking to bring together science and indigenous epistemologies. This revised approach will be able to break down the traditional dichotomies, which still impose epistemological borders between nature and culture and which continue to conceal the additional value of the social and cultural dimensions of conservation. In the postcolonial Zimbabwean context, questions of conservation need to be reframed as part of a broader set of questions concerned with knowledge studies. In this particular setting, "as the inheritors of both colonial violence and disciplinary entitlement, we have no alternative but to respond through acts of indiscipline" (Ibid.: 8) if we are to find ways in which Western

science and indigenous epistemologies can be reconciled as part of the attempt to achieve sustainable conservation in Zimbabwe and beyond.

Chapter 4

'*Ubuntu/unhu*' and Environmental Conservation in Africa: A Remedy to the Current Conservation Crisis?

Introduction

In Africa and beyond, especially at the turn of the millennium, there have been concerted debates [both oral and written] on the 'actual' causes of environmental problems we are facing today. Boggled by the same conundrum, Zimbabwean scientists/researchers like those of many other African countries have established over-population, deforestation, veld fires, farm invasions and other anthropogenic activities as the causes of environmental degradation and other environmentally related problems the country is suffering (Chaumba et al 2003). I admit this position has enjoyed many disciples and audiences for years now, and while to some extent it is true of Africa and Zimbabwe in particular, I argue that it misses a crucial point underlying all these problems: no wonder the problems persist (even) with magnified severity. To be more specific, the researchers disregard *ubuntu's* undeserving loss of value in environmental conservation and development projects since the advent of colonialism through the present time, in African societies. The insignificant attention to the philosophy of *ubuntu* in conservation is observable in literature where most scholars and researchers have only applied the concept of *ubuntu* in areas such as health,

education, judiciary systems, religion and politics. Ramose (1999), Teffo (1995) and Shutte 2001, for example, explore the importance of *ubuntu* in African philosophy especially in areas such as morality/ethics, epistemology, logic and metaphysics. Mbigi and Maree (1995), Goduka and Swadener (1999) and Prinsolo (1995) focus on the value of *ubuntu* in business, education and healthy fraternity respectively. Still other studies (Cornell n.d; Sindane 1995; Bhengu 1996) have exported the concept of *ubuntu* into legal systems and politics. Surprisingly, scholars have devoted insignificant attention to explore the underlying value of *ubuntu* in environmental conservation. One, therefore, wonders if in the past the philosophy of *ubuntu* did not occupy the front seat in biodiversity or 'nature' conservation projects.

Against this background, this chapter traces and examines the position of *ubuntu* in nature conservation in the past through the present. In this attempt, the chapter marshals the concept of *ubuntu* and positions it against the Zimbabwe, in particular, Norumedzo and Mukanganwi landscapes in southeast. The salient features in environmental conservation projects in these two landscapes help to unravel the extent to which *ubuntu*, though it has been subverted over the years, captures and informs 'sustainable' conservation of the environment. The chapter (as with the whole book) thus challenges the given causes (by many scientists/researchers in Zimbabwe and beyond) of environmental degradation in Africa for the major reason that they fail to recognise what I shall call 'the cause of causes' which lies in the devalorisation and undermining of *ubuntu's* potential to help conserving the environment. It is worth noting that the philosophy of *ubuntu* is enshrined in taboos (*zvierwa*), avoidance rules (*miko*) and other such traditional systems as proverbial lores. Without

necessarily dismissing to oblivion the 'secondary causes' of environmental degradation (those identified by most scientists/researchers i.e. deforestation), the chapter argues for the revival of *ubuntu* in environmental conservation projects; its full recognition, restoration and reinstitution along with science in national environmental conservation projects and policy planning.

Understanding *Ubuntu/Unhu*

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 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 Bantu languages, though historically popularised by the Nguni and in particular the Ndebele and the Zulu. In many other Bantu languages, the concept has equivalent terms. For example, in the Shona of Zimbabwe, ubuntu is equivalent to the concept '*hunhu'/'unhu'*. Yet, the central question remains: 'What is it that is referred to as *ubuntu*?'

According to Ramose (1999), *ubuntu* is a multifaceted philosophical system that involves logic, metaphysics, epistemology and ethics; it is a philosophy of life that is concerned with the reinforcement of unity, oneness and solidarity among the Bantu people – the humanness. It is the distinctive elasticity and practical nature of *ubuntu* that makes it applicable in almost all facets of human life. As such, the concept has been wisely exported as an underlying philosophy or code of conduct into business, legal system,

education, theology/religion, healthy and academic disciplines such as African philosophy and ethics. Historically, the concept of *ubuntu* (*'unhu'* in Shona and 'humanness' in English) or rather the philosophy of *ubuntu* is intergenerational, that is, it has been spontaneously passed on from one generation to the other mainly through oral tradition and practices. 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. This connotes that the social praxis of *ubuntu* has always been wholesome and all-encompassing though insignificantly studied in relation to nature conservation in African societies.

Assumed Causes of Environmental Degradation in Zimbabwe

While there is adequate evidence that, Zimbabwe, like many other countries in Africa, is experiencing environmental conservation problems, there are disagreements on the 'real' causes of the problems. Some scholars (Moyo et al 1991; Mukamuri 1995) argue that environmental problems in Zimbabwe, like in some parts of Africa, have been aggravated by the twin projects of colonialism and science. Moyo et al (1991), for instance, argue that during pre-colonial times and the earlier part of the colonial period, land was neither a scarce resource, nor was it under threat of permanent environmental degradation, but with increasing colonial

settlement and control, inequality of access to the natural resources was dictated. Moyo et al (ibid) give example of the Land Apportionment Act of 1930 that took away most of the fertile communal land from the black majority and converted it into commercial farms for the white minority. With an annual population growth rate in excess of 3.5% (IUCN, 1988) and a shrinking access to land, traditional conservation methods including fallow and extensive grazing became impractical in these Communal Areas, and land degradation set in.

For Mukamuri (1995:i) "colonial policies of rural development [in Zimbabwe as elsewhere in Africa] were based not only on modernization but also on the denigration of the experiences of local people. ... The notions of modernity that were imposed from the outside were at stark variance with local views about autonomy, specific needs and technology". The colonization of Zimbabwe and the rest of the African continent were therefore predicated on a perfidious and deceitful moral obligation of civilizing the people of Africa when in fact the European imperialists meant doom to the cultures, technologies, psyche and the general philosophy of life of the African peoples. In terms of environmental conservation and management, colonialism in Zimbabwe was predicated on the myth that the locals, with their epistemologies that in the eyes of the Europeans were unscientific, were unable to sustainably use the resources at their disposal. Other scholars (Aylen 1941; Bowyer-Bower 1996) argue that overpopulation and indigenous practices triggered and fuelled environmental degradation and other such environmental conservation problems in Zimbabwe and beyond. Aylen (1941), for example, claims that during pre-colonial times and the earlier part of the colonial period, there

was little detrimental impact on the environment by human land use in Zimbabwe because of the extensive, nomadic and fallow land-use practices that provided well for the relatively low population densities, as well as the practice of indigenous soil conservation measures. For Bowyer-Bower (1996), the western awareness, through science, of the causes and effects of land degradation from inappropriate land use and management, and the need for and use of appropriate monitoring techniques and conservation measures, has been well established in Zimbabwe since the 20th century when land-use guidelines for environmental protection have long been legislated. Also, a formal management infrastructure for their research, implementation, and support through extension services remains considerable. Still other scholars (Chenje 2000; Goredema et al 2011) argue that the post-independence Zimbabwe government was responsible for the mounting environmental conservation problems with its fast track agrarian reforms. Chenje (2000), for example, argues that, besides the dramatic decline in agricultural production, many 'natural' resources have suffered in the newly resettled areas due to lack of expertise on land use by the new farmers. For him, if there is no significant change in farmers' behaviour towards the environment both greenhouse gases concentrations and global temperatures would constantly increase. The different activities undertaken by new farmers which have resulted in large tracts of forests being indiscriminately cut or burnt, animal habitats being destroyed, scattered dwellings being left to collapse on their own has had varying effects on the environment with negative implications on the climate. These activities have reduced vegetation cover, impacted on the soil conditions, runoff processes and have triggered gully erosion.

On the same stroke, Goredema et al (2011:147), argue that: The Fast Track Land Reform Program saw the movement of a number of people into land that was formally occupied by commercial farmers. New areas were cleared to enable cultivation of crops and other associated activities such as hunting, gold panning, firewood gathering, and settlements. These activities certainly have had implications, mostly negative, on environmental management and climate change. For example, there was a great decline in crop production between 2001 and 2002 and reports show that nearly one million Zimbabweans faced acute hunger. Maize production came down from 800,000 tons to 80,000 tons, wheat from 225,000 tons to 100,000 tones, tobacco 230 mil kg to 70 mil kg (see also Goredema et al 2011).

There is no doubt that when confronted with arguments surrounding environmental conservation contestations in Zimbabwe, it is somehow difficult to identify the exact root cause responsible for the conservation crisis in the country. Yet, it is important to understand the 'root cause' of conservation crisis in Zimbabwe, before understanding what this research considers as secondary causes that many scholars in environmental conservation have identified as the causes. Identifying the root cause is important in order to avoid secondary causes and to suggest possible solutions to the crisis. Trying to look for solutions to the secondary problems would miss the point as it is akin to attempting to cure a disease before understanding its real cause. In what follows, I give a general critique of arguments raised by those in conservation contestations before suggesting what I think is the root cause of the causes of the environmental conservation crisis in Zimbabwe.

The Root Cause(s) for the Failure of Zimbabwe's National Environment Conservation Project

As highlighted in the introduction of this book, Zimbabwe, like many other countries in Africa and beyond, is experiencing an environmental crisis, in addition to economic and political turmoil that the country is experiencing especially since the turn of the new millennium. In the present study, I am not concerned with the latter, but with the former, especially the question: "What is the real root cause of the failure in Zimbabwe's environmental conservation project?" This, though not an easy task, is the question I will grapple with in this section.

As has been seen in the previous section of this chapter, contestations on environment conservation in Zimbabwe also reveal a trajectory of land contestations in the country since the colonial period through the present. They also put to light the tension between knowledge forms, particularly Science and Indigenous Knowledge Systems (IKSs). Though scholars sketched in the previous section might be correct in their own right in terms of what they think are the causes of the environmental conservation crisis in Zimbabwe, I do not buy their arguments. Instead, I proffer the argument that both the colonial and post-independence governments have failed the environmental conservation project of Zimbabwe. I will not show where both the colonial government and post-independence deserve merit (as I have done this elsewhere) (see Mawere 2011b), except to point out how both governments have failed Zimbabwe's environmental conservation project.

To start with the colonial government, the latter instead of seeking ways to merge the local people's *ubuntu* embedded

in their IKSs with Western science in the national conservation project, it despised and castigated to the dustbin of oblivion all conservation practices that were considered traditional or 'indigenous'. By default or otherwise, it failed to realize that, *ubuntu*, as a philosophy of life of the local people the Shona, was a rich system that the bearers had used successfully for centuries in conserving their 'natural' environment. It is clear, therefore, that the colonialists and some anthropologists' description of Africa as a 'dark' and 'virgin land' that required civilisation was a total failure to understand and interpret the locals' philosophy of life, in this case, their 'philosophy' of the environment. Seeing 'nature' in its beautiful state, they were made to believe that the locals were unable to exploit nature as they were not 'real' people like themselves, but part of nature: nature therefore cannot exploit itself. It was far from their conviction to think that the 'nature' was good looking simply because of the way the locals interacted with their environment and all biodiversity in it.

As such, with the advent of colonialism along with science in Africa, and Zimbabwe in particular, nature/culture dichotomies were created for the first time in Zimbabwe's conservation history. This disrupted the harmonious relations that were prevailing between the locals and their 'natural' environment. The *ubuntu* and other such indigenous knowledge systems (IKSs) that regulated the people's way of life and perpetuated the harmonious relationships of humans with all other entities (nonhumans included) in the natural environment were pejoratively labelled as speculations and unscientific.

Because of this devalorisation of the African knowledge systems and traditions, *ubuntu* could not flourish. In the 'new'

set-up, the flourishing of *ubuntu* could only be possible under the provisions of Customary Law, for as long as it did not clash with Western Civil Law under the secular processes of modernisation and commercialisation, a framework of a policy of separate development that ultimately led to the destruction of the locals' ties with their natural environment. In fact, the locals were forced to abandon or leave *ubuntu* to lie dormant and learn the colonial science and philosophy as the only reality and appropriate way to conserve the environment. This way, *ubuntu* as with other IKSs, was indeed 'buried' and forgotten; since then perhaps until recently, *ubuntu* has never been accorded any priority in the nature conservation agenda of Zimbabwe.

As part of its promise to the long subjugated people, at independence, the Zimbabwean government vowed to commit itself to rectify all the problems that the colonial government created, that of relegating *ubuntu* included. The post-independence government pledged to reverse the ongoing land degradation and 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). This was indeed a positive gesture towards sustainable conservation as it appeared to resuscitate both threatened species and those (species) that the colonial government did not consider important enough for inclusion in the national conservation project. Yet, the post-colonial government's national conservation project, like its predecessor's conservation model, was heading towards a dismal failure. The major reason for the failure was that the postcolonial Zimbabwean

government, just like the colonial government, adopted formal science as its sole tool for environmental conservation. By so doing, Zimbabwe was perpetuating the colonial legacy of despising and relegating *ubuntu* and other environmentally related IKSs to the backseat of national conservation projects.

As such, the strained relations between humans and other beings and the nature/culture, Science/IK dichotomies that the colonial government created remained unchallenged. Yet, this was the number one enemy of sustainable environmental conservation. It resulted in some species such as forest insets whose value and rights were never pronounced in the colonial government's environmental conservation project to remain alienated. Zimbabwe's most recent National Environmental Policy and Strategies (ZNEPS) of 2009 clearly shows this perpetuation of the colonial government's conservation model with its silence on the moral value and rights of other fauna and flora species in the 'natural' environment. The policy is largely discriminatory and exclusionary of other entities in the 'natural' environment and scientifically informed. I have pointed out in chapter three that: '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 ...' (ZNEPS 2009: 7).

As can be seen in the quotation above, one can see that insect species and many other small species are not fully recognised in Zimbabwe's current environmental policy despite the contribution that most of these insects make to human livelihoods and the ecosystem as a whole. We can

only assume that insects, together with other small organisms are those beings referred to as "uncounted species in other groups". The truth remains that Zimbabwe's current environmental policy (2009) has no specific clause that provides for the protection of forest insects and many other small organisms. It is clear, therefore, that some fauna and flora species are made by the ZNEPS to be more equal than others. This is contrary to the philosophy of *ubuntu*, which seek peace and harmony with everyone in the society and with the 'natural' environment. Though it might have its own flaws, *ubuntu* as embedded in environmentally related traditional knowledge systems, since time immemorial, acknowledged the moral value and rights of all entities in the 'natural' environment. Thus, while traditional management of the environment by the local Bantus was informed by *ubuntu*, the experience that Zimbabweans went through since the colonial period have led them to despise their own traditional knowledge systems. Thus, the post-independence Zimbabwe through its national environment policy is not an exception to the unsustainable conservation in the country.

Ubuntu/unhu in Environment Conservation in Zimbabwe: What has Gone Wrong Over the Years?

There are no comprehensive and systematic researches on *ubuntu* in conservation in south-eastern Zimbabwe. However, my preliminary ethnographic studies in this part of the country have shown that in some parts of south-eastern Zimbabwe the philosophy of *ubuntu* is still used in small-scale environment conservation schemes and with visible consequences to the environment. Where the philosophy of *ubuntu* still prevails, the consequences are positive and

otherwise in those areas where the philosophy has lost its grip. In what follows I present two Communal Areas in south-eastern Zimbabwe – Mukanganwi and Norumedzo – the latter of which is still using *ubuntu* in its environment conservation culture.

Starting with the latter, Norumedzo is a mountainous Communal Area found in south-eastern Zimbabwe, particularly the Bikita district in Masvingo province. It is about 100km from Masvingo urban. The area is occupied by various Bantu groups, mainly the VaDuma of *moyo* (heart) totem, who share the same culture generally referred to as the Shona. Though the traditional way of life of these people has been affected in a number of ways by the Western contacts, it is still largely regulated by their long lasting *ubuntu* philosophy. This philosophy is still visible in the way the Varumedzo/Norumedzo people conserve their 'natural' environment which is also their major source of livelihood. Norumedzo Communal Area comprises 44 villages, all under Chief Norumedzo (Personal field notes 2012). The area is rich in edible stink bugs (*Encosternum delegorguei Spinola*) locally named *harurwa* [in Shona language] and wild loquats (*mazhanje*) which exist in the thicket forest/grove (*jiri*) that was set aside for its natural resources – *harurwa* and *mazhanje* – to flourish. The *jiri*, which is about some hundred square metres, is the 'natural' environment being sustainably conserved by the locals, and is believed to be sacred. Both the locals and strangers are constantly advised by the Chief through headmen and village 'policemen' not to tamper with it as tampering with the *jiri* is believed to anger ancestors who in return might cause the *harurwa's* extinction and the *mizhanje* trees not to produce fruit. It is during the exploitation of resources from the *jiri* that the harvesters should demonstrate

their highest level of *ubuntu* to the environment, locally known as '*hunhu'* (humanness). As such, to ensure sustainable exploitation of resources from the *jiri*, anyone who wants to exploit resources from the *jiri* would have to first of all seek permission from the village authorities. Villains (those who tamper with the *jiri* or harvest without permission from traditional authorities) are tried and convicted by Chief Norumedzo's traditional court.

To ensure that beliefs associated with the *jiri* are not put to test, the Chief has organized the villages in such a way that they take turns to safeguard the *jiri* from overexploitation, especially during the season of *harurwa* and *mazhanje*. The Chief is well connected to the surrounding Chiefs and the District Police Chief (Member-In-Charge) who, in a way, helps him fostering and perpetuating the philosophy of *ubuntu* in the *jiri*. Once the season for *harurwa* and *mazhanje* comes, the Chief pays tribute to both the Police Chief and the surrounding Chiefs. This way of doing is possibly drawn on the deep-seated philosophy of *ubuntu* which through the Shona (like other traditional Bantu groups) philosophy of good neighbourliness (*chigarisano*) and friendship (*usahwira*) emphasizes practices of respect, sharing and mutuality. The philosophy bridges the divides and tensions amongst the people as it encourages neighbours to help each other and share the resources they have in their respective communities. As the philosophy of *ubuntu* is wisely applied to foster social cohesion, sharing with outsiders is not only an expression of love, but discourages potential thieves and invaders from stealing the neighbours' belongings. Through *ubuntu*, even outsiders are made to feel that the neighbour's property is also theirs. Thus, using the philosophy of *ubuntu* embedded in all the above explained mechanisms, Chief Norumedzo and

his people are managing to conserve the 'natural' environment while at the same time maintaining good relations with those outside their community. And, given that the *jiri* is a source of livelihood for the Norumedzo and outside communities, the philosophy of natural conservation – *ubuntu* – they are using has managed to survive for centuries now. Even the 2008 Zimbabwean politico-economic crises have left the philosophy intact and the *jiri* flourishing.

Contrary to the Norumedzo scenario is the mountainous Mukanganwi Communal Area, also in the south-eastern Zimbabwe. It is about 85km from Masvingo urban and about 20km before Norumedzo. My contact with the locals in Mukanganwi during my preliminary ethnographic studies revealed that, in this area, *harurwa* and *mazhanje* used to exist in abundance as in Norumedzo today. This was indeed evident from the look of *mizhanje* trees I observed in the area most of which had been debarked and others at the verge of falling. I was curious to know the possible cause of the increasing deterioration of *mazhanje* and *harurwa* harvests in the area. I was told by one of the old headman, Nyikayaparara (not his real name), that the cause was nothing, but abandonment of *ubuntu*. This was echoed by another headman, Todini (not his real name). It was from this response that I became curious and sought to examine the influence of *ubuntu* in environmental conservation.

On examining why *ubuntu* was fast losing its grip in Mukanganwi, unlike in Norumedzo, I was informed that Chief Mukanganwi rules from a distance as he is a full time lecturer at the University of Zimbabwe. And because the Chief is away most of the time and is believed to have been seriously affected by Western tradition, the philosophy of *ubuntu* has been badly eroded in his chiefdom, and with

negative consequences. It was further revealed by headman Gore that traditional practices such as the philosophy of *ubuntu* function well when the chief is always available to support his headmen in upholding it by punishing perpetrators. In the next section, I examine the negative consequences of abandoning *ubuntu* in the environment conservation culture in Mukanganwi Communal Area.

Consequences of Abandoning *Ubuntu* in Environmental Conservation

As previously highlighted, the abandonment of *ubuntu* in conservation culture in Mukanganwi Communal Area has its negative consequences on the locals' livelihood. The consequences are many and lacking the space to explore them all in depth, I will simply focus on those that the locals revealed during the present research.

First, *harurwa* and *mazhanje* which used to exist in abundance during the old days have drastically diminished. Many people now travel to Norumedzo, about 20km away for *harurwa* and *mazhanje* – once ubiquitous resources. This means suffering to the Mukanganwi people as they now travel longer distance in order obtain resources that used to be ubiquitous in their area. More so, their livelihood has been greatly compromised as it was from *harurwa* and *mazhanje* that they sustained their families and now that the resource is further from their locality there are inconveniences in obtaining the resources.

Second, the rainfall pattern in Mukanganwi area has dramatically changed in the recent past. Unfortunately, there are no systematic researches, prior to the present research, carried out so far in this area to establish the real cause of the

diminishing amounts of rainfall in this mountainous area. The present research, however, noted that while natural phenomena is partly blamed for the erratic rainfall in Mukanganwi over the past few decades, human causes like deforestation and veld fires seem to be significantly contributing to the climatic changes in the area. In fact, it can be inferred using the logic of comparison (with the Norumedzo *jiri*) that reluctance on the deployment of *ubuntu* in people's relations with the 'natural' environment has compromised the rainfall pattern over the years. This is quite visible in Mukanganwi Communal Area which is now characterised by loss of forests that is going on annually. This indiscriminate cutting down of trees, for settlements, extension of farmlands and during *harurwa* and *mazhanje* harvesting, is a good reason to explain why rainfall is now erratic in the area. So are diminished harvests of *mazhanje* and *harurwa*. This is because forest clearance poses the greatest threat to insect diversity and negatively influences climate change. As echoed by FAO (2001), loss of tropical forests is the greatest threat to insect diversity globally, as tropical forests harbour the majority of all insect species and the destruction of tropical forests continues at the high annual rate of 0.5–1%. In line with climate change, UNFCCC (2006) and Bambaige (2008) noted that the main sectors likely to be impacted by climate change include: Agriculture and food security, water resources, costal resources, biodiversity, human health and infrastructure, loss of life, erosion, land degradation, sea level rise, natural disasters, salt intrusion, crops, ecosystems, property, human and animal habitats, outbreaks of pests and diseases, displacement of people, and destruction of infrastructure (communication network, schools, hospitals and houses). And, as reported by locals in

the area, the impact of drought which was a rare phenomenon in Mukanganwi, badly ravaged the area in the recent years, especially in 2001/2002; 2005/2006 and 2008/2009 seasons.

Third, veld fires have become more frequent in the past few decades, especially during the absence of the chief. As previously highlighted, one of the functions of a Chief is to enforce and promote the use of traditional practices and to administer peace among his people and their relations with the 'natural' environment. Veld fires are "blazes that get out of control and devastate extensive tracts of forest, grassland, wildlife and other natural resources as well as injure and kill people and destroy their properties" (Natural Resources, Agricultural Development and Food Security 2009; Mawere 2010:92). When I asked headman Mushinyi, Mr Chikonzero (not his real name) whether veld fires were common in the past, he conceded, but emphasised that people had to seek permission first from village authorities. It was not a 'willy-nilly' exercise as nowadays. He added that perpetrators were tried and convicted by the headmen or chief's court and the fine varied depending on the size of land or kind of species destroyed. This confirms Mkwanazi's (2007) observation that human beings are responsible for 95% of forest and veld fires, as natural fires (not influenced directly by human beings) have become rare. Mukanganwi like many other Zimbabwe's Communal Areas is suffering constant veld fires. While in Mukanganwi, this has aggravated in the recent times due to constant absence of the chief, in many other parts of the country, land degradation has been enormously worsened by the chaotic Fast Track Agrarian Reform since the turn of the new millennium. The Agrarian Reform has had a serious and negative impact on the physical environment – both

fauna and flora – as most of the new farmers in the newly resettled areas lack implements and so resort to fires as means to clear their land. This is echoed by Mawere (2011a: 880) who argues: 'Veld fires contribute to a significant proportion of land degradation and the release of greenhouse gases to the atmosphere and destroy property and resources needed for immediate use over the dry season, crops, firewood, biological diversity, water sources and grazing land'.

Finally, I consider deforestation. Deforestation in Mukanganwi Communal Area has dramatically increased over the years. In passing through a small path down the Hozvi Mountain in Mukanganwi's Chiefdom, I was perplexed when I suddenly entered a vast cleared area down slope. It was in June and the trunks of the cleared trees were still lying on land. Down slope is where the homestead of my aunt, Mrs Tapera (not her real name) is found. Besides my observations, it was here where it was confirmed that people in Mukanganwi no longer respect the 'natural' environment as they did in the past when the philosophy of *ubuntu* still flourished in that chiefdom. When I suggested that perhaps the cause was increase in the number of people who are now in need of firewood and land for farming, she strongly objected. Like headmen Nyikayaparara, Chikonzero and Todini, she cited the abandonment of *ubuntu* philosophy as the root cause for the deforestation they are suffering today. In her words:

> *Pose paunoona pangova makoronga apa raiva sango remizhanje nemimwewo michero yesango yaingoberekana pamadiro. Hapana chawaishaya kwete. Asi nhasi ndirori rangova gwenga nepamusaka pekurasa tsika nehunhu hwavakuru vedu. Vakuru vedu vairemekedza chose chaiwanikwa mumasango sekuremekedza*

*kwavaiita vanhu. (*All this land you see now full of dongas was a grove of wild loquats and other fruit trees which grew naturally. It was a land of plenty where everything existed in abundance. But, today the same land has been turned into a desert due to disregard of our forefathers' traditions and *ubuntu*. Our ancestors respected all biodiversity in much the same way they did to fellow humans).

She indeed longed for the old 'golden' days when people used to cut down only branches of trees they would use, and when fruit trees like *mizhanje* received the same respect as that accorded to elderly people. Thus as can be seen from the discussion above, in Zimbabwe's contemporary society as elsewhere in Africa, the fundamental principles of *unhu/ubuntu* have been relegated and despised as useless due to western capitalistic selfishness and egoism that have spread their tentacles thereby eroding the values of the African people.

Righting the Wrong: Some Case Studies

In light of the foregoing, it is clear that if we are to go by the two models explained above –Norumedzo and Mukanganwi – we easily agree that the philosophy of *ubuntu* is a worthwhile traditional strategy that has proven beyond doubt its utility in some societies. It is one of the IKSs that if reinstated has the potential to complement science in national environmental conservation projects. Yet there are asymmetrical relations between Western Science and traditional practices like *ubuntu* and other such IKSs and, between humans and other entities in the 'natural'

environment. The problem, however, remains: 'How can we move beyond these asymmetrical relations? Or does breaking the boundaries and dichotomies between nature/culture, Science/IKS entails reframing debates in environment conservation?' Such critical questions are akin to those that Mignolo (n.d) raises around modernity when he asks: "how can 'critical theory' be subsumed into the project of modernity/coloniality and decolonisation? Or would this assumption perhaps suggest the need to abandon the twentieth century formulations of a critical theory project? Or, would it suggest the exhaustion of the project of modernity?"

In view of the preceding questions, I submit that debates in conservation require careful reframing. Yet, the problem on how the debates should be reframed persists as reframing necessitates a deconstruction process and possibly a reconstruction one. This is because that reframing implies a thoroughgoing re-evaluation of the existing approaches in environmental conservation and challenging them (where necessary) by suggesting new ones to respond to the problems in conservation. I have already argued for the revival of some traditional practices such as *ubuntu* in areas where the philosophy has lost its grip in conservation. But to do so would require a 'holistic' comprehensive approach – an approach that reconciles understandings of contending approaches in the Science/IK, Scientist/traditionalist debate (Mawere 2011). This is to say that in this chapter a 'soft' post-humanities approach is suggested as a possibility to constructively address and reconcile the asymmetrical relations in conservations and anthropology of knowledge in general.

However, one among the most complex concepts to define with precision in the humanities today concerns post-humanities. The complexity of the concept derives from its different interpretations by different scholars. It is worth noting, however, that what most scholars do not dispute about post-humanities is that: "It situates itself at a crossroads: the intersection of the disciplinary formation we call 'the humanities' in its current configuration, and the challenges posed to it by work (much of it interdisciplinary) in a range of fields that is associated with the emergent orientation known as 'post-humanism,' work that in some fundamental sense challenges the humanities as we now know it to move beyond its current parameters and practices" (http://www.cary wolfe.com/online.html).

From the foregoing and for purposes of this work, the approach I advocate herein seeks to resist move beyond the Western imposed Science/IK and nature/culture dualisms: to establish forms and methods of interdisciplinary knowledge by way of rethinking 'productively' how changes in societies challenge scholars to reconsider their understanding of 'reality' and relations between different entities in the society. My approach is therefore one that:

i). Seeks to promote a 'sustainable' dialogue between Western science and other knowledge forms (such as IKS) that are involved in environment conservation practices and projects. Such an approach is worth considering as there are some traditional conservation strategies that have proven beyond doubt that they are efficient in conserving the 'natural' environment. The strategies being deployed by the Norumedzo people of south-eastern Zimbabwe are among the list. Another case in point is that of Kissidougou and Ziama in Guinea cited by Fairhead and Leach. According to

Fairhead and Leach's (1995: 1028), ethnographic study 'there has been a broadly positive relationship between the peopling of Kissidougou and Ziama and their forest cover. As settlements are associated with the formation of forest islands, more villages mean more forest cover'. From their research, the duo argue that 'recent approaches by state agencies [and foreign organisations], which focus on decentralising resource control by establishing village-level organisation and environmental management plans, actually risk undermining the existing flexible, diverse constellation of resource management relations' (Fairhead and Leach: ibid). Fairhead and Leach thus argue for a 'sustainable' dialogue between Science (and the state) and IK in designing and implementing national environmental conservation projects.

ii). Seeks to reconsider and revive some traditional practices of environmental conservation that at one point or another were despised and relegated to the periphery as speculations and unscientific as long as these have proven their utility or social praxis. The reconsideration of *ubuntu* and other forms of knowledge as complements to science could be cases in points. This is what Lien and Law (2010: 5) allude to when they argue that 'through attention to practices and performativity, we may contribute to an anthropology which is more sensitive to relations between humans and other living beings than is possible in a more anthropocentric approach'.

iii). Is practically responsive of humans' changing understanding of themselves and the world in terms of their relations with other entities in the world they share. Such an approach is critical as it moves beyond dualisms by considering humans, non-humans and the state as a collective and as interdependent members of the universe they share.

The creation of dichotomies/dualisms is undesirable as 'this anthropocentric approach emphasizes particular qualities of the human-animal phenomena on the basis of relations of asymmetry marked by animal subordination. In other words, it separates 'culture' (human) and 'nature' (non-human) on the basis of unequal distribution of agency' (Lien and Law 2010:10).

To conclude, this chapter has shown that some parts of Zimbabwe are facing mounting environment conservation mismanagement related phenomena and others which result from climate change. The chapter has argued that while it is partially true that the natural phenomena and secondary causes cited by some researchers on Zimbabwe are worth blaming for environmental degradation in the country, research on Mukanganwi and Norumedzo Communal Areas revealed that causes such as veld fires and deforestation are only among the secondary causes. They have their own root cause(s) – underlying cause – which researchers on Zimbabwe and beyond, by default or otherwise, leave undocumented. I have argued that this cause is the subversion and relegation of the philosophy of 'ubuntu' (which is at the core of African thought and practice) in environment conservation culture. Thus due to the effects of colonialism and modernity's preoccupation with scientism, 'ubuntu' and other such IKSs that were used to conserve the environment have suffered relegation as speculations and unscientific (Mawere 2011b) to the extent that they were buried and forgotten, but indeed not dead.

More importantly, the chapter has argued that the problems and challenges encountered in Mukanganwi Communal Area are not new or unique to the area, but are resonant of those encountered in other projects elsewhere, in

Zimbabwe and beyond. Yet to overcome such environment conservation there is need for an enhanced posthumanities approach that encourages scholars to rethink conservation projects, particularly the possibility of moving beyond the nature/culture, Science/IK dualisms and considering the revival of 'buried' philosophies such as 'ubuntu' and other such knowledge forms as IKs. This is what scholars such as Abrams (1996) protested for when he argued that in community-based projects the community should control the project and make important decisions, although professionals such as engineers may provide expertise and financial support provided by external financial sources. In this sense, I have argued for 'constructive' rethinking of conservation projects at all levels – from grassroots to national level. In the next chapter, I explore other ways through which sustainable conservation could be achieved.

Chapter 5

Leveraging Sustainable Environmental Conservation and Management in Africa: Other Emerging Perspectives from Within

Introduction

Debates in conservation sciences and environmental anthropology, particularly on the so-called "indigenous knowledge (IK)-science" divide remain highly volatile and a potentially explosive terrain. Consequently, a manifold of interpretations and constructions of the relationship between IK and science has become even more complex than ever. The complexity of establishing a definitive, concrete solution to the "divide" is summed up in Green's (2012) assertion that although Euro-American philosophy cannot possibly be considered the sum of human intellectual heritage, the contrary remains the dominant assertion in most university based scholarship. This is further compounded by the "distinction between belief and knowledge which enabled the origins of science as we know it, and is at the core of the division between the sciences and IK" (Green 2008: 155), nature and culture. In philosophy quarters, attempts by logical positivisms of the 1920s that for decades outlawed and relegated as nonsense all locally generated knowledge – the so-called "indigenous" knowledge systems – that cannot be verified through expert science (Mawere 2010) like most, if not all, "indigenous" knowledge systems also impacted drastically the "IK-science" divide. It is however curious to note that the failure by science to solve all human problems,

environmental problems included, has provoked critical researchers to rethink the IK-science and nature-culture dualisms. That said, this chapter constitutes a theoretical review that contributes to this debate by grappling with the discourses on IK-science divide, the rationale for their hyper cycles including their often incoherent, non-systematic integration into mainstream conservation sciences and environmental anthropology. Taking the contemporary global environmental problems into consideration, the chapter argues for the reframing of debates in conservation sciences and environmental management in such a way that promotes knowledge pluralism if sustainable environmental conservation and management are to be successfully met.

Understanding indigenous knowledge systems: A brief overview

Indigenous knowledge systems (IKSs) are a phenomena pervasive in any human society the world over. In Africa, IKSs have always been used for various ends depending on the needs and aspirations of the society in question (see also Mapara 2009). This suggests that IKSs are quite enduring such that they have survived the test of time and history. In view of this understanding, IKSs can be conceived as local knowledge(s) that is unique to a given culture or society (see http://www.sedac.ciesin.columbia.edu website). They are knowledge forms that have failed to die despite the racial and colonial onslaughts that they have suffered at the hands of western imperialism and arrogance (Altieri 1995). The two definitions given above suggest that IKS as a form of knowledge is intergenerational, that is, it is passed on 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 that deserves a genuine answer arises here: 'What does it mean to be local?' In relation to the second definition, another question can be raised as well: 'Do IKSs as knowledge forms only exist in formerly colonised areas?' Considering these two possible critics, my conception of IKSs identifies with Ocholla 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' (Ocholla 2007: 2). 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 'indigenous' because the meanings as well as the categories of sense making are deeply context-bound in so far as they 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), traditional knowledge (IDRC), local technical knowledge, indigenous and traditional knowledge (Kawooya 2006), community knowledge and in some cases, even folkloric knowledge (Kargbo 2005). Given that we cannot sensibly talk of IK without mentioning IKS from which the former derives its meaning, in this chapter, the terms indigenous knowledge system (IKS) and indigenous knowledge (IK) are applied to mean one and the same thing, and therefore used interchangeably. In this light, I underscore 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 such as rituals and rites. Also, IKS remain the adhesives or epoxy resin that bind and harmonise society as they constitute communicative processes through which knowledge and moral values are transmitted, preserved and acquired by humans in a given society.

Yet, while up to this point, the conception of IKS seems easy to unpack, it becomes somehow difficult to conceptualise as soon as certain elements from other cultures are assimilated over time. Against the difficulty assimilation brings into the concept of IKS, I argue that the dilution of indigenous knowledge systems by way of assimilation does not negatively alter its understanding. In fact, indigenous knowledge need not essentially be traditional in nature for it to be considered indigenous. Knowledge thus is still considered 'indigenous' despite being contemporary. Contemporary knowledge serving indigenous ends, or using indigenous materials or processed through indigenous rules or heuristics can also be part and parcel of IKSs provided it is interpreted through local cultural meanings. A fine example is India's knowledge of tea growing and manufacturing. It is a well-known fact that until two hundred years ago, India did not cultivate tea bushes. But, today India is one of the biggest consumers of tea in the world. This example makes clear my argument that a lot of indigenous knowledge systems has evolved all over the world in much the same way those around the tea plants, tea manufacturing and the use of the waste and used tea leaves have evolved.

Indigenous knowledge – Science divide: Clearing the mist around the divide

As highlighted in the introduction, the so-called "IK-science" divide and/or the culture-nature dualism, in conservation sciences and environmental management has attracted the attention of many academicians and researchers alike in the recent years. Different positions and interpretations have been conjured, yet without achieving any concrete solution on how science and IK, nature and culture should relate and inform our understanding of conservation and management of the natural environment. Instead, anthropological challenges that require new responses to environmental problems have been posed thereby inciting even more intense debates around science-IK and culture-nature dualisms. As such, the next paragraphs of the current study examine how some scholars have grappled with science-IK divide within the nature-culture framework and in terms of the environmental problems faced in some parts of the world. Though these scholars are many, the studies by Mario Blaser (2009); Fairhead and Leach (1995); Mawere 2012; and Paul Little (1999), among others, shall receive more attention as they offer the immediate data required for this study.

Grappling with the question of IK-Science divide with reference to conservation, Mario Blaser (2009: 10) in his paper: *"The threat of the Yrmo…."* examines a range of misunderstandings and conflicts encountered in attempting to integrate IK into development and conservation agenda by some scholars in political economy and political ecology. Using the notion of "political ontology," Blaser examines how and why in 1999, a sustainable hunting program that was

put in place for the Yrmo indigenous communities of Northern Paraguay flopped. By political ontology, Blaser means 'a framework built on the multinaturalist understanding that there are many kinds of natures as opposed to the political economy and political ecology framework built on the modern multiculturalist understanding that we exist in one nature and many culturally situated perspectives of it' (see p. 11). Blaser explains that though hunting permits [which were granted by Prodechacho in partnership with the Yshiro federation], were issued on condition that hunting had to be done sustainably, two months after the launch, the program turned into depredation and devastation and flopped. Making an analysis of the "political ontologies" that accounted for the failure, Blaser comes to the conclusion that the program failed due to two major reasons: 1) a misunderstanding of how hunting can be achieved, a misunderstanding which at another level is that of the relationship between nature and culture and, 2) conflicts associated with attempts to integrate IK into development and the conservation agenda or rather integrating IK and science in development and the conservation agenda. In explaining the source of the misunderstandings and conflicts surrounding the failure of the program, Blaser points out that integrating "indigenous" and modern scientific knowledge the way it was done in Paraguay, turned the project to be an instance of what Viveiros de Castro calls "uncontrolled equivocation" (de Castro 2004). Uncontrolled equivocation is a type of communicative disjuncture where the interlocutors are not talking about the same thing, but unconscious of this. In the case of the sustainable hunting program in question, the meaning of "sustainable hunting" and of "nature" assumed by the Yshiro [indigenous people] and the

Prodechacho [bureaucrats and experts in science] in the agreed program were different. To be more elaborate, the Yshiro understood humans and nonhumans or rather culture and nature as interdependent on each other for subsistence, existence and livelihood to the extent that they could hardly separate the two. On the other hand, the Prodechacho/scientists understood nature [natural construct] as distinct and separate from culture [social construct]. As a matter of consequent, the Yshiro perceived their territory – the Yrmo/nature/cosmos as part of them. According to the Yshiro elders, Yrmo [cosmos/nature] is 'governed by the principle of relationality or mutual dependence between all entities that co-constitute it to keep the flow of energy that sustains it [the Yrmo]' (Blaser, 2009: 13). Yet the Prodechacho understood nature as a separate and distinct entity that could be threatened by the Yrmo's [indigenous people] cultural activities like hunting. Throughout his study, Blaser shows the multiple facets of the problems encountered in an attempt to integrate IK and science and thereof nature-culture in conservation and management of the natural environment. To overcome these problems, Blaser, though didn't explicitly say this in his abstraction emphasises coordination and distribution of performances between knowledge forms, in this case, between science and IK in a way that keeps different performances apart and encourages knowledge plurality so that inconsistencies between them do not turn into direct clashes/conflicts.

Paul E. Little (1999) is another scholar who grapples with the science-IK divide within the nature-culture discussions and current global environmental problems. In his piece, "Environments and environmentalisms in anthropological research…" Little uses the concept of "environment" to

explore the science-IK divide in environmental anthropology. For Little, the term "environment" in common usage is often used as a synonym for nature (i.e. the biophysical or nonhuman environment), but this usage creates great conceptual confusion because the environment of a particular human group includes both cultural and biophysical elements (Rappaport 1979). Taking into account this observation, Little uses the term environment as often used in environmental anthropology to refer to 'an explicit, active concern with the relationship between human groups and their respective environments' (Little 199: 254). He distinguishes two major areas of environmental anthropology; ecological anthropology [which uses ecological methodologies to study man-environment relationships] and environmental anthropology [which uses ethnographic methodologies to study environmentalism as a type of human action] which differ in methodology and objects of study. Using a case study of the tropical rainforests, particularly the Amazon, Little observes a sharp increase in environmental concerns and activism/movements of environmental justice over the past two decades. He attributes the increased environmental concerns to a conflict over 'the increase in deforestation, the increase in size of the hole in the ozone layer, global warming, the biophysical and social impacts of the El Nino ocean current' (p. 261) between capitalists [science] and peasants [activities by local people]. He acknowledges that some studies place the agency/action of the rural peasant at the forefront of environmental destabilisation and degradation [in southern Honduras] based on their strategies for survival and others place capitalist relations of production and forces of production as impairing and destroying the local communities' (natural environment included) own social

and material conditions of production. In this light, the debates on IK-science divide within the natures/cultures framework can be perceived of as a confrontation between indigenous ways of production and knowledge vs. capitalistic ways of production and scientific knowledge or simply a "science vs. IK war". Little points out that these are problems which though anthropology is strategically situated to resolve remain controversial due to the 'radicalisation of nature/culture dualism during the 1990s' (p. 257) in response to the global environmental crisis. However, Little proposes that the development of an ecological theory that incorporates natural and cultural dimensions within a single, broad paradigmatic framework is necessary if the current global environmental crisis is to be successfully conquered. This suggestion relates with Gellner (1995: 252) who argues that 'the social construction of reality needs to be complemented by the natural construction of society'. Little invites us to consider the example of the rubber tapers of Brazilian Amazonia who 'gained worldwide attention through their political strategies that combined local direct action with international environmental campaigns' (p. 265; Hecht and Cockburn 1989: 357). In view of his proposition, Little is however quick to acknowledge the problems faced by ecological theorists to address both natural and social phenomena within a single explanatory framework. Some scholars like Law (1987), Vayda and Walter (1999), for example, regard the interface between natural and social systems yet others like McKibben (1999) believe this would result in disharmony – "the end of nature" whereby parts of nature are modified or invaded by human action. These contrary positions have made it difficult to provide a solution on how nature and culture and therefore science and IK

should relate, especially in view of environmental conservation and management. In acknowledging this tantalising difficulty, Little though argues for an expanded anthropology of the environment that offers new possibilities of uniting empirical research with the political and environmental project, opens the challenge to build "a new bio-cultural synthesis" to biological and cultural anthropologists. Yet Little's study remains useful in that: 1) It enhances our understanding of how humans have been affected by their natural environment through time and, conversely, how they have affected that environment and with what results. 2) It invites us to re-evaluate the past and present impacts of human beings on landscapes previously considered as pristine or as landscapes only minimally modified by past inhabitants including specific indigenous peoples or unknown Paleo inhabitants. 3) It calls for 'a balance and loci of power in decision making process' in environmental issues between local communities (who represent IK) and the international community (which represents science). This relates with the argument raised by Green (2012) that to attend to the continued marginalisation of IK, the debate on science vs. IK is needed in the universities in both the sciences and humanities. Such a position has the merit that "environmental rights" of all people will be respected at all levels (from grassroots level to international level). By environmental rights, we mean the complex domain of environmental anthropology that refers to those cases where the claims and entitlements of "indigenous/first people" (Burger 1990) to territories and natural resources they historically occupied and continue to use (Miller 1993). Thus to a larger extent, Little successfully the concept of "environment" as a powerful tool with which

to open dialogue between all knowledge forms (such as science and IK) concerned with the natural environment.

Indigenous knowledge systems and sustainable conservation: Some case studies

There has been ample evidence in literature on environment studies that point out how indigenous knowledge systems have been used in some parts of the world to promote sustainable conservation of the environment (Mawere 2012; Fairhead and Leach 1995). Brief case studies by these scholars on the institution of IKSs in fostering sustainable conservation and management of the environment serve as a 'melting pot' for a stunning, nuanced grasp of the potentialities of IKSs. They also advanced the thesis of this paper that a sound, intelligible exploitation of IKSs ideally presents impeccable opportunities for their productive appropriation and renders a vantage point for deep pragmatic engagement with current problems troubling the conservation sciences.

I have pointed out in chapter 4 that in my recent studies in south-eastern Zimbabwe, (Mawere 2012), for example, I have reported how the Norumedzo people, the VaDuma of *Moyo* (heart) totem still employ traditional restrictions in promoting sustainable conservation of a big forest known as *jiri*. He reports that, the Norumedzo Communal Area comprises 44 [registered] villages rich in edible stinkbugs (*Encosternum delegorguei* Spinola) locally named *harurwa* [in Shona language] and loquats (*mazhanje*) which exist in the thicket forest/grove *(jiri)* that was set aside for its natural resources – *harurwa* and *mazhanje* – to flourish for centuries now. The *jiri,* which is about 7 km^2 is the 'natural'

environment being sustainably conserved by the locals under the traditional jurisdiction of Chief Norumedzo, and is believed to be sacred. Both the locals and strangers are constantly advised by the chief through headmen and village 'policemen' not to tamper with it as tampering with the *jiri* or unsustainably exploit resources therein for this is believed to anger ancestors who in return might cause the *harurwa's* extinction and curse the *mizhanje* (loquats trees) not to produce fruits. In fact, it is during the exploitation of resources from the *jiri* that the people in this region demonstrate their highest level of *ubuntu* (humaneness) and capability to sustainably manage their environment. To ensure sustainable exploitation of resources from the *jiri*, anyone who wants to exploit resources from the *jiri* is obliged to first of all seek permission from the village authorities. Villains (those who tamper with or unsustainably exploit resources in the *jiri*) are tried and convicted by chief Norumedzo's traditional court. Thus through traditional restrictions or institution of IKSs, the *jiri* is flourishing, a clear testimony that IKSs can be successfully instituted to promote sustainable conservation of the environment, particularly of natural resources.

In another case study, Fairhead and Leach (1995) in their piece: 'False forest history, complicit social analysis……,' examine, how over the years, social science has explained the rapid and recent deforestation supposed to have occurred in Guinea, West Africa so as to inform policy responses to it. Using two case studies namely, forest island of Kissidougou and Ziama forest reserve, Fairhead and Leach explore 'the production of applied social science knowledge about people-environment relations in Guinea which exemplify the type of social analysis often brought to bear to explain environmental

degradation in Africa' (p. 1023). For the duo, these two case studies clearly expose common assumptions on which social science research on Africa tends to draw. To a greater extend these assumptions have strengths and credibility due to their systematic logic in writing and justification. However, 'once dissected from the reality they seek to construct, these explanations reveal instead how the applied social sciences can be used to lend weight to popular Western perceptions about African society and environment – a mythical reality which development interventions are acting to recreate in vain' (p. 1023). For this reason, Fairhead and Leach argue for the need to rethink people-environment relationships in Guinea. To justify their case, Fairhead and Leach sought to carry out a research in the two areas mentioned above, Kissidougou and Ziama.

Fairhead and Leach's (1995) study reveals that social scientists and policy makers or rather "foreign observers" today tend to date [all] socio-environmental disruption [in Kissidougou and Ziama like socioeconomic change, increasing mobility/migration, weakening of traditional authority, individuated farming/shifting cultivation, cultural decadence, alienation of local resource control to state structures, commercialisation of local charcoal, fuel wood and timber, and population growth] to the notorious regime of Guinea's first republic (1958-84) under Ahmed Sekou Toure and imaging the colonial period as environmentally friendly, while nationals tend to look to the pre-colonial period to find "good' society and environment" (p. 1024). To substantiate the "misconstrued" conception by social scientists, Fairhead and Leach cite Project Kan 11 scientists (1992) who reported that: 'At origin, the forest between Kissidougou and Kankan was …a dense, humid, semi-deciduous forest. The trigger of

degradation is …the farming system by their shifting cultivation and fire-setting practices, preserving only the belt of forest around their villages to protect their settlements from fire and wind ... and to provide seclusion for secret ritual activities' (See Fairhead and Leach 1995: 1024; Chevalier 1909, 1933). Fairhead and Leach also cite recent research results by professional social scientists on environmental issues in Kissidougou which attributed the deterioration of the environment, to erosion and soil impoverishment, the drying up of water sources, the origin and nature of forest destruction which all result largely from 'the origin of perverse use of bush fire.. . and socio-economic, political, religious break-ups' (Projet Kan II 1992).

Contrary to these studies, Fairhead and Leach's study identifies with Zerouki (1993) and Fofana (1993) who note that 'degradation seems to be recent and the twin project of colonialism and 'modernity' is responsible for disrupting the once successful integration of fire control within diffuse sets of intra- and inter-villages social, cultural and political relationships' (p. 1025). This difference between researchers on agency for environmental degradation makes the whole question of culture and origin more complex and ambiguous. For Fairhead and Leach, this complexity makes it paramount to 'examine how vegetation has actually changed in Kissidougou [using historical data sources ignored or deemed unnecessary by social analysts such as aerial photographs, oral history, earlier documentary sources like explorers' reports, reviewed descriptions and maps] is a necessary first step in evaluating these social science analyses' (p. 1026). These sources have the merit that they put to question the actual relationships between society, demography and the environment. Also, they take into account the fact that local

land use [which incorporate locally generated knowledge] can be vegetation-enriching as well as degrading [if uncontrolled]. Using these data sources in 27 of the 38 villages investigated, Fairhead and Leach produce a counter-narrative [of social scientists and policy makers] which establishes that the forest history of Kissidougou and Ziama regions documented by social scientists and policy makers was false and ill-founded; 'it is an explanation for forest loss which has not actually been taking place' (p. 1027). The duo observed that there has been a broadly positive relationship between the peopling of Kissidougou and Ziama and their forest cover as settlements are associated with the formation of forest islands – more villages mean more forest islands. For this reason, 'recent approaches by state agencies [and foreign organisations], which focus on decentralising resource control by establishing village-level organisation and environmental management plans, actually risk undermining the existing flexible, diverse constellation of resource management relations' (p. 1028). Fairhead and Leach thus argue for a counter narrative with environmental policies that emphasise support to proven local practices and knowledges.

This position relates with Green's (2012) deconstructionist project and Visvanathan's (1997) concept of "cognitive justice" with which he argues for the democratisation and plurality of knowledge. This is critical as emphasis has to be placed on the need to gain the participation, acceptance and support of local populations if conservation is to be sustainable (see Fairhead and Leach 1995: 1030); otherwise "foreign and externally enforced" environmental management face resistance. Fairhead and Leach's position thus, has the merit that unlike other researches [like Xaba's (2008)] that exhaust more energies on

denigrating other forms of knowledge and practices [for example, denigrating "indigenous" knowledge forms or science], it looks at locally generated environmental management practices as alternatives to scientific environmental management practices. As Fairhead and Leach (1995) argue, counter narratives such as theirs 'provide different and more appropriate guidelines for policy and present socio-environmental change in a way which better fits local experience; it provides a more effective basis for dialogue and participatory development work with local populations' (p.1033). This way, Fairhead and Leach's project to democratise knowledge is viable as it opens dialogue between nature and culture or rather between forms of knowledge such as IK and science; it acknowledges that both locally generated knowledge forms [IKs] and scientific environmental management systems can benefit from each other in the whole process of environmental management and preservation. Such a position is indeed positive because:

1) It avoids the undesirable habits of "Othering" and "Saming" that cultivate "hierarchical and stereotypical thinking" (Lacan 1964) which in turn amounts to a narrow way of understanding and interpreting societal/and cultural realities and,

2) It acknowledges that advancement in knowledge can only be successfully achieved if particular forms of knowledge are viewed as relative and not judged by one's values or viewpoints and, if there is dialogue between different knowledge forms. There should be no notions in a "good" knowledge project of one form of knowledge being better or worse than another.

Conclusion

This chapter has theoretically and critically examined the arguments by some scholars in conservation sciences and environmental anthropology in terms of how they consider the "IK – science" divide within the nature-culture discourse on environmental conservation and management. Taking the global contemporary environmental crisis into account, the chapter has argued that debates in conservation sciences and environmental management should be reframed if "sound and sustainable environmental conservation and management" (Mawere 2011: 874) are to be achieved.

I should underline that this chapter has argued that science and IK should not be viewed as mutual enemies, but as complementary – distinct and separate knowledge forms – that can benefit from each other and help us advance the frontiers of knowledge/understanding. This is what Shiv Visvanathan (2009) calls "cognitive justice," that is, "a democratic and sustainable dialogue between science and other forms of knowledge" (Boaventura de Sousa 2007) or what Green (2008) calls an opening up for other epistemologies in order to advance understanding. To this end, the chapter has argued in view of extant debates on "science vs. IK dualism" that either science or IK can successfully progress in resolving our environmental problems if complemented by each other; that both science and IK can benefit from each other in the whole process of environmental conservation and management; that debates in conservation sciences and environmental management should be reframed if sustainable environmental conservation and management is to be met with success.

Notes

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In spite of its surging popularity with scholars and environment conservation and management aid experts, scientific environmental epistemology does not seem to be the answer to the forestry and environmental problems that Africa is facing. Due to the lasting impacts of colonialism and therefore Western scientism on Africa, at the core of the conservation dilemma lies the conflict between scientific conservation epistemologies and 'local'/'indigenous' conservation epistemologies with the latter being the locals' potential workable solution to the environmental problems haunting the continent. It is in view of these circumstances that this book was born. The book is a clarion call for the revival and reinstitution of indigenous conservation and management epistemologies, not as a challenge to Western scientific conservation epistemologies, but to complement efforts by Western science in easing the tapestry of environmental problems that haunt Africa and the rest of the world. This is a valuable book for environmental conservationists, land resource managers, political/social ecologists, environmentalists, environmental anthropologists, environmental field workers and technicians, and practitioners and students of conservation sciences.

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