

AFRICAN ECO-PHILOSOPHY

Cosmology
Consciousness
and the
Environment

Ikechukwu Anthony KANU, OSA, PhD



**AFRICAN ECO-PHILOSOPHY:
COSMOLOGY, CONSCIOUSNESS
AND THE ENVIRONMENT**

**Edited By
Ikechukwu Anthony KANU, OSA, PhD**

**AFRICAN ECO-PHILOSOPHY: COSMOLOGY,
CONSCIOUSNESS AND THE ENVIRONMENT**

Edited By: Ikechukwu Anthony KANU, OSA, PhD

First Published in 2021

A publication of The Association for the Promotion of African Studies

COPYRIGHT © 2021 by The Association for the Promotion of African Studies

All rights reserved: No part of this publication may be reproduced, stored or retrieved or transmitted in any form or by any means electronic, mechanical, photographic, recording or otherwise without the prior written permission of the Editor

ISBN: 978-978-997-558-7



13245 Trebleclef Lane Silver Spring
20904, Maryland,
United States of America

Dedication

Dedication

Celebrating Professor Ikechukwu Anthony KANU, OSA
@40

“... now the text ends, and the commentary and fascination
begins”

TABLE OF CONTENTS

Dedication - - - - - iv

Table of Contents - - - - - v

Introduction:

African Eco-Philosophy and the Environment ix

Chapter One

African Eco-Philosophy: Nature and Foundations

Ikechukwu Anthony KANU, OSA, PhD - 1

Chapter Two

Towards an African Eco-Philosophy

Anthony Uzochukwu UFEAROH, PhD

& Emmanuel Kelechi IWUAGWU, PhD

& Hillary Oguejiofor EZE, PhD - - 19

Chapter Three

Ecological Significance of Mmuo Mmiri

(Water Spirits) in Igbo Philosophy and Religion

Ikechukwu Anthony KANU, OSA, PhD - 31

Chapter Four

Environmental Sustainability and the

Quest for Global Social Order in Francis' Laudato Si

Philip Osarobu ISANBOR - - - 43

Chapter Five

Global Warming, Global Climate

Change and its Impacts on Human Health

Fernando Alcoforado, PhD - - - 67

Table of Contents

Chapter Six

An Eco-Philosophical Discourse on
the African Charter's Right to
a General Satisfactory Environment
and Socio-Economic Development

Mark Omorovie Ikeke, PhD - - - 79

Chapter Seven

Between Environmental Conservation
and Development: An African Perspective

Chinedu S. Ifeakor, PhD & Eze Romanus Chinedu 97

Chapter Eight

The Moral Implications of Climate Change

Peace Iziegbe Osaghae- - - - 117

Chapter Nine

The Concept of Taboo in Igbo Spirituality:
A Philosophical Examination

Agama Christian Sunday, PhD

& Onyeakazi Jude Chukwuma, PhD - - - 137

Chapter Ten

African Environmental Ethics: Towards
a Non-Anthropocentric African
Environmentalism

Chinedu Stephen Ifeakor, PhD & Andrew Otteh 151

Chapter Eleven

Eating Regimen and the Ecosystem:
Questioning the Survival of Africa

Aleke Matthew - - - - 189

Table of Contents

Chapter Twelve

Environment in the Cultures of War and Peace

Philip Osarobu ISANBOR - - - 209

Chapter Thirteen

African Ecological Crisis and Eductaion

Jude I. Onebunne, PhD & Success Okechukwu 233

Chapter Fourteen

Armer-Herder Ecological Crisis in
Nigeria vis-a-vis Gabriel Marcel's
Intersubjective Philosphy

Justin C. Anyarogbu - - - 251

Chapter Fifteen

Covid-19 and African Environmental/
Herbal Based Remedies

*Jude I. Onebunne, PhD & Success
Okechukwu & Benjamin C. Okoye* - - 275

Chapter Sixteen

African Traditional Religious Taboos and
the Eco-System: A Tiv Perspective

Dorothy Nguemo Afaor & Rose Yangu Amah 297

Chapter Seventeen

Afroecology of Traditional African Societies:
An Anthropology of Ecotheology,
Ecophilosophy and Ecospirituality of the Yoruba

Paul-Kolade Tubi, PhD - - - 311

Table of Contents

Chapter Eighteen
Indigenous Knowledge Systems,
the Environment and the Practice of
Traditional Medicine in Africa
Benedict Michael S., PhD - - - 339

Chapter Nineteen
Trans-Biology and Biospheric Modification
Hilary Ugwu - - - - - 353

Chapter Twenty
Open Grazing in Nigeria: A Threat
to Human Life and Environmental Degradation
Nnoruga, Nnaemeka James, PhD - - 377

INTRODUCTION

African Eco-Philosophy and the Environment

Africa's experience of the consequences of the mismanagement of the environment include the pollution of the air, water and soil caused by industries, motor vehicles exhausts, heavy metals, nitrates and plastics, industrial waste, etc. The result of these pollutions is climate change visible in global warming which has led to rising temperatures of the oceans and the earth surface, melting of polar ice caps, rise in sea levels and also unnatural patterns of precipitation such as flash floods, excessive snow or desertification.

Coupled with these is the problem of overpopulation of the earth which puts pressure on the resources such as water, fuel, food, etc. Because of the pressure put on natural resources as a result of rising population, there is a depletion of natural resources. Still connected to the rising population is the high consumption of resources that go with excessive plastic wastes or garbage and the inappropriate dumping of the same. These wastes end up as pollutants of the environment. The consequence of these changes taking place in the world especially as it concerns the climate and wastes, is the loss of biodiversity. These human activities are leading to the extinction of species and habitats and, therefore, of bio-diversity.

Very valuable to the ecosystem is the ozone layer. It prevents harmful ultra violet radiation from reaching the earth. However, in the face of its depletion, it puts the lives and survival of organisms and human beings in danger. Alongside this is the problem of deforestation. Forests that should be natural sinks of carbon dioxide which produces fresh oxygen as well as helps in regulating temperature and rainfall are reducing fast in space

Table of Contents

and number. The consequence of the excessive production of Co₂, is an increase in the acidification of oceans in the last 250 years. It is projected that this might shoot up by 150% in years to come. This obviously affects the life of sea animals and organisms.

These emerging challenges are partly the consequence of human activities in the earth, and have been traced to the Western consumerist and hedonistic approach towards the use of the environment; which comes with an understanding of the environment as a property rather than a whole to which the human person is a part. Pope Francis (2015) describes the mismanagement of the ecosystem that has led to these challenges as a sin against humanity. In the contention of Hufnagel (2018 and 2020) and McDonagh (2004 and 2010), it is the horror of extinction; Taylor (2019) refers to it as the major human dilemma of our time; for Tubi (2020), it is an ecocide.

In the face of these environmental challenges, there is need for an alternative perspective to the management of the environment. There is need for an understanding of the environment as that which is not only material but as that which has non-empirical value. Since this has got to do with the environment, there is need for an environmental philosophy that is within the categories that that African people understand and appreciate. African eco-philosophy, therefore, looks into the ontology of the African people inundated with rich cultural or ontological materials which will enhance effective communication of values for the conservation of the environment.

Moreover, it is well known that Africa is affected by environmental degradation caused by foreign countries, directly and indirectly. It is in this regard that Francis (2015) insists that

Table of Contents

the “warming caused by huge consumption on the part of some rich countries has repercussions on the poorest areas of the world, especially Africa, where a rise in temperature, together with drought, has proved devastating for farming” (no. 51). This is simply to say that Africa, in a way, bears the brunt of ecological degradation caused by more economically and technologically advanced countries. This calls for a more profound reflection on the ecology by the African people. This is where African eco-philosophy, which is an African philosophical reflection on the ecology finds its importance. This is even more important as the African continent is generously endowed with mega flora and fauna which needs to be protected for the health of the African environment.

In relation to solving ecological issues from the particular religious, cultural and philosophical experiences of particular peoples, Francis (2015) teaches that:

There is a need to respect the rights of peoples and cultures, and to appreciate that the development of a social group presupposes an historical process which takes place within a cultural context and demands the constant and active involvement of local people from within their proper culture. Nor can the notion of the quality of life be imposed from without, for quality of life must be understood within the world of symbols and customs proper to each human group (no. 144).

This becomes very important as one discovers that the environmental challenges emerging in Africa came to be with the coming of colonialism to Africa which altered traditional patterns of relationship with the environment. Foreign approaches, in the contention of Francis (2015) are no longer sustainable:

Table of Contents

A consumerist vision of human beings, encouraged by the mechanisms of today's globalized economy, has a levelling effect on cultures, diminishing the immense variety which is the heritage of all humanity. Attempts to resolve all problems through uniform regulations or technical interventions can lead to overlooking the complexities of local problems which demand the active participation of all members of the community. New processes taking shape cannot always fit into frameworks imported from outside; they need to be based in the local culture itself. As life and the world are dynamic realities, so our care for the world must also be flexible and dynamic. Merely technical solutions run the risk of addressing symptoms and not the more serious underlying problems. (no. 144).

There is, therefore, the need to see how the African people had related with their environment in a spirit of respect, solidarity and complementarity. In the contention of Ogungbemi (2007):

In our traditional relationship with nature, men and women recognize the importance of water and air management to our traditional communities. The ethics of not taking more than you need from nature is a moral code. Perhaps this explains why earth, forest, rivers wind and other natural objects are traditionally believed to be both natural and divine. The philosophy behind this belief may not necessarily be religious but a natural means by which the human environment can be preserved the ethics of care is essential to traditional understanding of environmental protection and conservation. (p. 36).

The need for the African people to relate to their environment within their categories is very important as Africa is today united by the consciousness that individual destinies are caught up with

the health of natural systems at the national, regional and continental levels. This Book of Readings on African Eco-Philosophy: Cosmology, Consciousness and the Environment focuses on philosophical reflections regarding the issue of ecology in Africa. These reflections spring from the African earth-based spiritual traditions and innovative spiritual practices. This book, therefore, would become one of the greatest ornaments and lights in the world of African eco-philosophy.

Reference

- Behrens K. "The Imperative of Developing African Eco-Philosophy." *Themes, Issues and Problems in African Philosophy* edited by Isaac Ukpokolo, Palgrave Macmillan, 2017, pp. 191-204.
- Francis, Pope (2015). *Laudatio Si (Praise be to You)*. Papal Encyclical on Climate. <https://www.ewtn.com>
- Hufnagel, L. (2018). *Ecosystem Services and Global Ecology*. IntechOpen.
- Hufnagel, L. (2020). *Changing Ecosystems and Their Services*. IntechOpen
- McDonagh, S. (2004). *The Death of Life: The Horror of Extinction*. The Columbia Press, 2004.
- McDonagh, S. (2010). *Climate Change: A Challenge to All of Us*. Columbia Press, 2010.
- Ogungbemi, D. 2007. *Philosophy and Development*. Ibadan: Hope Publication, 2007.
- Slaymaker, William. "Ecoing the Other(s): The Call of Global Green and Black African Responses." *African Literature: An Anthology of Criticism and Theory*, edited by Tejumola Olaniyan and Ato Quayson, Blackwell Publishing, 2007, pp. 683-697.
- Taylor, S. (2019). *Ecopiety: Green Media and the Dilemma of Environmental Virtue*. Nyu press, 2019.

Table of Contents

- Tubi, P-K. (2020). "Ecocide in Traditional Communities: An Anthropological Study of Ecological Crises in northeast Yorubaland". *IJMSSPCS* Vol 3, no. 3, 2020, pp. 245-255.
- Ukpokolo, Isaac. "Introduction: The Shifting Focus of Philosophy in Africa." *Themes, Issues and Problems in African Philosophy*, edited by Isaac Ukpokolo, Palgrave Macmillan, 2017, pp. 1-10.

Chapter One

AFRICAN ECO-PHILOSOPHY: NATURE AND FOUNDATIONS

Ikechukwu Anthony KANU, OSA, PhD
Department of Philosophy and Religious Studies
Tansian University, Umunya, Anambra State
ikey_mario@yahoo.com
ORCID iD: 0000-0003-1977-202X

Executive Summary

The environment has been degraded in various forms, and each story of degradation is conditioned by the environment and mentalities of the people present to that particular part of the world, and the consequences of this degradation have become more visible in our time with the abundance of acidic rains, carbon dioxide emissions, depletion of national resources, floods, draughts, outbreak of diseases, pollution of seas, death of animals, shrinking of water bodies, etc. Scholars are agreed that the conventional approach which is largely Western has not been able to handle the problems associated with the present ecological crisis. There is, therefore, the need to develop alternative approaches in such a manner that it works for all peoples and in all places. While developing solutions to ecological problems there is the need to put into consideration the categories of particular peoples, and to use languages and cultural symbols that people understand. This is at the base of the emergence of African eco-philosophy. It attends to questions such as: how does the African understand his or her environment? How has he or she been able to manage this environment even before the advent of the West? What are the spiritual dimensions of his or her eco-system that gives meaning to the environment beyond the Western consumerist and

utilitarian concept of the environment? While there are a few papers written on African eco-philosophy, there is hardly literature that discusses its foundations in a profound manner in relation to the African worldview. This paper, therefore, discusses African eco-philosophy within the broader concerns of philosophy with the purpose of bringing out its distinctive characteristics and foundations, taking from the African worldview. The phenomenological and analytical methods of inquiry were employed for the collection and analysis of data.

Keywords: Philosophy, Eco-Philosophy, African, Environment, Nature, Foundation, Sources

Introduction

In this piece, the concept 'African' provides the context for this study, in the sense that it speaks of an African philosophical approach to ecological discussion within the parameters of philosophy, on the one hand. Thus, the concept African speaks of the *locale*, the context which obviously shapes the discussion. The concept 'eco', on the other hand, is derived from 'ecosystem' which refers to the organisms and the physical environment with which they interact and function as a unit linked together through nutrient cycles and energy flows (Chapin, 2011; Odum, 1971). Thus, an ecosystem entails an ecological community consisting of different populations of organisms that live together in a particular habitat, with each element constituting the ecosystem playing an important role in the proper functioning of the ecosystem (Schulze, et al., 2005). The relevance of this study springs from the understanding that the ecosystem is under threat at different levels which the Western approach has failed to resolve (Alexander, 1999, p.14). This has led to the need for alternative approaches to the problems bedeviling the ecosystem. It is from this background that African eco-philosophy takes its place.

While focusing on the African context, this work attempts at articulating the nature of African eco-philosophy. That is, an African philosophical perspective regarding the ecosystem. It also involves how the African understands the eco-system at the philosophical level. This cannot be understood outside an understanding of the business of the philosophical enterprise. What then is philosophy? Philosophy is from two Greek words: *φιλο* (*philo*) meaning *love* and *σοφία* (*sophia*) meaning *wisdom*. Brought together, it means the love of wisdom. The concept is a neologism attributed to Pythagoras; it literally means “the love of wisdom”. This presents philosophy as a high and supreme achievement of man, and philosophers as aspirants to or proponents of wisdom. In this relatively strict sense, philosophy implies both the process of questioning and the results of this interrogation as embodied in a personal or public enterprise of value to mankind (Maziarz 1987). Thinkers in the Classical and Scholastic traditions tend to regard philosophy as a habit of the mind or a body of natural knowledge that results from the use of special methods which enables one to explain in a more or less profound way the sum of human experiences. It is acquired systematically and takes as its beginning, ordinary experience (Maziarz 1987).

Modern tradition concurs that philosophy is a reflection on the subject’s experience; it is the response of the self to whatever appears to be non-self. During the Classical Era philosophy passed from the physical world to the contemplation of metaphysical realities; the conquests of Alexandra which initiated the Post-Aristotelian period, philosophy took a political dimension, emphasizing the commonwealth of humanity; then the dawn of Medieval philosophy with its spirit of theocentricism. During the Modern age of philosophy, it reflected a scientific character, emphasizing the powerfulness of

the rational faculty of the human person. As regards contemporary philosophy, apart from the concern with science, philosophers in the 21st C have become increasingly aware of the human and his or her problems.

Within the African context, African philosophy becomes the philosophical reflections of Africans or non-Africans with an understanding of the African people and worldview of African conceptual systems and social realities. In relation to the eco-system, an African eco-philosophy will focus on how this philosophical reflection affects or shapes thoughts or reflections on the eco-system. In this case, African eco-philosophy becomes an aspect of a sub-field of African philosophy. That which remains necessary in such a philosophical reflection is the employment of categories common, peculiar and understandable to the African people. Africa, its worldview and its historical experiences of ecological crisis, therefore, becomes the context for such a philosophical discussion. This work has the burden of discussing the nature of African eco-philosophy and the principles that defines, guides and determines its operations and ends.

Theoretical Framework

The theoretical framework to be employed for the understanding of African eco-philosophy in this piece is Tangwa's *eco-bio communitarian* theory which is based on the African worldview that recognizes the inter-dependence of the dimensions of the African world. It is this metaphysical outlook that should underpin the manner of cosmic relations between human beings and nature. This was the spirit behind the traditional African's preservation behavior in relation to nature; they were cautious in their attitude towards plants, animals and inanimate things and the various invisible forces of the world. It was a philosophy of live and let live. This was very important as the separation

between the world of humans and the animal, plant, spiritual worlds were intertwined, such that what happens in any of these worlds will have consequences in the world of human beings (Ogungbemi 2007). This is the lesson that our technological, industrialized, modern, consumerist, capitalist, etc., world must learn from traditional African spirituality of the environment if the environment will be safe and the human life itself protected from further hazards.

The *eco-bio communitarian* theory is not opposed to technological advancement, industrialization, modernity, consumption of goods and services, capitalism, etc.; what it is opposed to is the motivation for their development and the uses to which they are put. The motivation in the relationship between the human person and nature that is guided by the spirit of possessing and dominating the world is at the heart of the present ecological crisis that humanity is facing. There is, therefore, the need for a more humble motivation for the pursuit of science and technology based on the eco-bio-communitarian attitude of respecting the other as a very important dimension of universal beingness. This understanding of the interrelatedness of reality and the metaphysical dimension of nature are at the base of African eco-philosophy. It is also on the basis of this understanding that African eco-philosophy makes its contribution to the pool of philosophies of ecology.

African Eco-Philosophy

African eco-philosophy signifies the African worldview that critically invokes ecology in promoting environmental protection. It is taken to refer to conceptual frameworks in African ecological and environmental science and as such combines theorizing in ecology with some contributions from the African worldview that relates to ecology. This theorizing within ecology is in relation to the recent ecological challenges.

These are the African ecological concerns that shape Africa eco-philosophical reflections.

What makes it an African eco-philosophy is the contribution that the African experience of ecological crisis and worldview make to the discussion on ecology. Every culture makes a contribution from its house of experience to the universal themes of thought, and this makes ecological discussions relevant to the reality of life. Each culture traces the unity of the themes in ecological studies, synthesizes and organizes them into a totality, based on each culture's concept of life, namely, the relationships between objects and persons and between persons and persons. However, much this may sound repulsive, this cultural contribution, which in the African context has strong religious undertone, is what particularizes ecology as African or otherwise. The 'africanness' of African eco-philosophy speaks of the *sitz en leben* or the *Locale* within which ecological issues are discussed philosophically. This provides the ingredients that defines it as African eco-philosophy.

Principles of African Eco-Philosophy

The principles that define, direct and determine African eco-philosophy include: symbolism, cause and effect, relationship, belongingness, harmony and cosmological balance and solidarity and respect for nature.

a. Symbolism

Symbols within the African context are religious and cultural realities that are imbued with deeper meanings than can be seen by any direct act of perception or apprehension, in the sense that they represent the abstract in a concrete form. In this case, they symbolize, express, represent, reveal and indicate (Ilogu 1974; Ukaegbu 1991). According to Dukor (2006):

Symbolic relationships are essentially tied to culture, as they show an essential function of the human consciousness which is basic to our understanding the language of a people through which the world and reality are penetrated. For our consciousness to really produce ideas of realities, logic needs to establish a relation and necessary connection between this consciousness and reality (p. xvi).

Within the African world, symbols are an attempt by the human person to present the invisible in a visible manner, the incorporeal in a corporal manner, the intangible in a tangible manner. In this case, it involves the human spirit's effort to represent the realities of the world of the spirits in a manner of mediation between two worlds; the realities of the world of the spirits are spirit forces that underlie every African reality. In this process of mediation, that which is not related in terms of meaning is employed from the human world to express that which is in the spiritual world. Echekwube (2005), therefore, avers that "Symbolism is an interpretation of an object in order to make it signify that which ordinarily it is not" (p. 6).

The African world is one in which trees, forests, animals, mountains, rivers, canals, etc., represent or symbolize one spirit force or the other. It is on the basis of this symbolizing, representation, expression, revelation and indication that symbolism plays a fundamental role in Africa eco-philosophy. These symbols give rise to thought; thought about the truth of the nature of the African world (Rubio 1985).

b. Cause and effect

Aristotle had holds that there are two ways of coming to know reality. First, reality could be known through knowing individual things or events as individual things and events, and as they appear to us; this form of knowing excludes the

underlying principle or ultimate causes of the reality that is known. This kind of knowledge is acquired through sense perception and is common to all kinds of people. Second, we can also know reality through going beyond the perception of the senses, beyond the perception of things and events as individual and isolated, to the perception of the ultimate causes or underlying principle of reality. A cause here, speaks of that which brings about a certain effect, and the effect is that which the cause brings about. In some cases, while the cause is invisible, the effect is visible.

The Ionians were concerned with this level of knowing when its representatives like Thales spoke of water as the underlying principle of being; Anaximenes spoke of a neutral element as the ultimate cause of reality and Anaximenes spoke of air as the basic unity in the midst of the plurality of things. Aristotle categorized this kind of knowledge as philosophical knowledge born out of intellectual reflection. He classified the causes of things into four: material cause, which is the material with which a thing is made of; the formal cause, which is the form or essence which makes a thing that particular thing; the efficient cause, which is the source or agent responsible for bringing a thing into being; the final cause, which is the purpose or end for which a thing is made (Kanu (2012a&b)).

For the African, according to Aja (2001), the world is an ordered universe in which all events are caused and potentially explicable. Thus, Gyekye (1987) maintains the doctrine of universal causation in the Akan-African world. The African does not just speak of mechanical, chemical and psychological interactions like his Western counterparts; he also speaks of a metaphysical kind of causality, which binds the creator to the creature. Reacting to the Western beliefs that things could happen by chance, Ozumba (2004) argues that what they call

chance is only the ignorance of the series of actions and reactions that have given rise to a given event.

Although Gyekye (1987) maintains a universal doctrine of causality in African ontology, he emphasizes that greater attention is paid to extraordinary events and not natural events or regular occurrences when issues of causality is discussed. Regular or natural events will include, rain during rainy season, drought during dry season, a pregnancy that lasts nine months, the growth of plants, catching of few fish at some particular times of the year etc. Such events do not constitute a problem for the mind of the African, because, as Gyekye (1987) argues “such events are held by them to be part of the order established by the omnipotent creator” (p. 77). They are empirical, scientific and non-supernaturalistic. They have been observed by people who now know that there is a necessary connection between such events, for instance, they know that during dry season, the river dries up, or that a child stays in the mother’s womb for nine months before delivery.

Extraordinary or contingent events are those that engage the minds of Africans, and such events would include, a woman being pregnant for more than nine months, drought during rainy season, a tree falling and killing a man. These events according to Gyekye (1987) have particular traits that make them mind disturbing, “They are infrequent and hence are considered abnormal; they are discrete and isolated; they appear to be puzzling, bizarre, and incomprehensible; they are not considered subsumable under any immediate known law of nature” (p. 78). The events are deemed insufficient to explain their causes, thus, the ultimate cause of the event is sought. The interest is not on what has happened but why it happened. Not that the tree has fallen, but why it fell on a particular man and not on the ground or on another man.

The African principle of causality is expressed in the following Igbo and Akan sayings: *ife na-akpata ife* (something is caused by something); *odighi ihe gbaraka mee* (nothing happens without a reason); *nwata no nuzo na-agba egwu, odi nwa nnunu na aguru ya egwu no'hia* (a child who is dancing on the road, there is a bird singing for it in the bush), *You cannot see the rabbit in the afternoon in vain*. The Akan will say; “whenever the palm tree tilts, it is because of what the earth has told it”. Within the context of the present ecological crisis, it understands the changes in nature as a consequence of a cause, that is, as effects of a cause. And to address the issues associated with the present crisis, there is need to trace the causes as a first step (Kanu 2014a&b).

c. Relationship

The African world is a world of relationships: relationships between the living and the dead, the spiritual and non-spiritual, the divine and human, the animate and the inanimate. These relationships are shaped by the category of forces that are involved. In these relationships, forces in nature or realities in nature influence one another in a positive or negative way. Tempels (1959) avers that: “The world of forces is held like a spider’s web of which no single thread can be caused to vibrate without shaking the whole network” (p. 60). Expanding our understanding on relationships in nature, Maurier (1985) writes that:

Relationship as the fundamental category of African philosophy, is the vital and active link between persons. The term ‘vital’ wishes to underline that outside ‘relationship’, the person tends toward inexistence. The term ‘active’ recalls relationship is not simply thought, an object of abstraction; but is one that acts without stop in very tangible concrete acts (p. 60).

Iroegbu (1995) adds that:

Not only is relationship vital... It is also active. Active relationship is one that involves concrete actions, facts and events in its network of expression... Passive relationship belongs to the inactive, the moribund, the death. To be alive at all entails having active relationships that link one with others, below and above, and that integrates one in the community. Activity is vital. (p. 370).

The idea of relationship captures the nature of the African universe. It is a relationship not only between human beings, or between human beings and spiritual beings, but also between human beings and nature. It is this relationship with nature and spirit forces that forms the philosophical basis for African eco-philosophy.

d. Belongingness

Within the African world, Iroegbu (1995) argues that it is not enough to be in a relationship, every reality must belong or not be at all. To be and not belong is to suffer self-alienation. He describes belongingness as the synthesis of the reality and experience of belonging. This belongingness is based on the recognition of our finitude as creatures; this recognition manifests our limitedness and self-insufficiency, and, therefore, the need to belong to the life of other creatures in the ecosystem for survival. This finitude borne out of our being created applies to other beings; it means that creation is in a constant interaction with humanity and humanity in constant interreaction with creation; there is a general interconnectedness and interdependence. Consequently, the ecosystem forms an organic unit that creates a web of relationships which interconnects all creation. This connectedness and interdependence introduces the concept of kinship in creation and between creatures. In this story of interconnectedness, it is the world, the Earth that constitutes the common home of all creatures. The care for this common home thus becomes a common responsibility for all,

especially human beings, given the very nature of their being as rational beings. The idea of a common home introduces the idea of a common responsibility towards the earth and towards one another.

The way to belong is to participate, that is, engaging the active side of relationship. This is the level of relationship with the whole that gives meaning to human existence or existence in general. It is also within this level of relationship that the human person gives himself or herself an identity within his or her community of being. This idea of belongingness and participation in the world, both the animal and the in-animate worlds, is the basis for an African Eco-philosophy. This is a world where the animate and inanimate, spiritual and physical not only relate but participate in the lives of each other for their mutual survival and realization of the purposes of their being or existence. This is a manner of being that speaks of solidarity among the forces of nature that tends to maintain the integral wholeness of the African universe (Kanu 2017a-e).

e. Harmony and Cosmological Balance

The purpose of a healthy relationship between the forces in nature is to maintain a balance and thus preserve the health of the universe. Once this balance is lost, usually born out the failure of particular beings to negotiate their existence on the highway of being in relation to the being of the other, the result is crisis, which can take the form of ecological crisis. Even though the African world is sometimes understood as dual, consisting the physical and spiritual worlds, the African universe is one. This oneness is possible if one realizes that in the African world that the spiritual resides in the physical, and that the physical is a manifestation of the spiritual. It is within this context that we can speak of trees, forests, mountains, rivers, etc., as the manifestations of spiritual forces in African eco-spirituality.

f. Solidarity and Respect for Nature

Solidarity and respect for nature is based on the African understanding of nature as a part of the network to which the human person belongs. Thus, when the human person expresses solidarity with nature, it is a way of preserving his or her own being by preserving the dimension of nature in question. When the human person respects nature, he or she actually respects himself or herself and not just nature. If on the other hand, the human person disrespects nature, the human person actually has disrespected himself or herself because of the connection between nature and the human person. The consequences of the human action on nature will have a resounding consequence on the health of the human person.

Conclusion

This piece studied the nature of African Eco-philosophy and attempted at defining its nature and foundations. Just as African philosophy is determined and shaped by principles based on the African worldview, African eco-philosophy is also shaped and determined by the African worldview. Very fundamental is the African philosophical elements that distinguishes African eco-philosophy from other eco-philosophies or spiritualities; these include the basic realities of symbolism, cause and effect, relationship, belongingness, solidarity and respect for nature and harmony and balance. These are the basic dimensions of the African universe that defines and directs the purpose of African eco-spirituality.

In African eco-philosophy, the element of symbolism is indispensable as the African world is a world of symbols, and these symbols convey meanings and presences about the African universe which is unique to the African people. The principle of cause and effect helps the understanding of the consequences of human actions in relation to the environment. Every action has a

corresponding effect, and the wrong action in relation to the environment will obviously have disastrous consequences. The concepts of relationship and belongingness speak of the relationality of reality, the complementarity of the different dimensions of being, since realities relate with each other and complement each other. The manner of the relationship will determine the harmony and cosmological balance that is possible. An understanding of this relationality of reality calls for solidarity for the preservation of being and also respect for otherness. The understanding of these principles shapes and defines African eco-philosophy as a discipline within African philosophy.

The beauty of this study is that it responds to the question of the possibility of an alternative perspective to environmental issues. It does not only provide an African perspective but defines it in such a manner that responds to the worldview of the African people. It is also a study in contextual philosophy, in the sense that it studies eco-philosophy or philosophically addresses ecological issues from African perspective, therefore, taking into cognizance the categories peculiar to the African people. It is within this context that discussion on ecological issues will not only be understandable to the African people but helpful to the solving of their environmental issues.

References

- Aja, E. (2001). *Metaphysics: An Introduction*, Enugu: Donze.
- Alexander, David E. (1999). *Encyclopedia of Environmental Science*. Springer, New York.
- Chapin, F. Stuart, (2011). "Glossary". *Principles Of Terrestrial Ecosystem Ecology*. 2nd ed. P. Matson, Peter Vitousek, Melissa Chapin (Eds.). Springer, New York.
- Dukor, M. (2006). Theistic panpsychic animism of African medicine. *Essence- Interdisciplinary International Journal*. 3. VI-XXX
- Echekwube, A. O. (2005). The basic principles of African philosophy. *Essence- Interdisciplinary International Journal*. 2.
- Gyekye, K. (1987). *An essay on African philosophical thought: The Akan conceptual scheme*. Philadelphia: Tempel University Press.
- Ilogu, E. (1974). *Christianity and Igbo culture*. Leiden: Brill.
- Iroegbu, P. (1994). *Metaphysics: The kpim of philosophy*. Owerri: IUP.
- Kanu, I. A. (2010). A Discourse on the Romance between Philosophy and Christian Theology. *International Journal of Theology and Reformed Tradition*. 2. 185-198.
- Kanu, I. A. (2012 a). Being qua Belongingness: The provenance and implications of Pantaleon's concept of being. *Lwati: A Journal of Contemporary Research*, 9. 4. 227-234.
- Kanu, I. A. (2012 b). From 'Onye' to 'Ife' hypothesis: The contribution of Edeh to the development of the concept of being. *Lwati: A Journal of Contemporary Research*, 9. 3. 218-223.
- Kanu, I. A. (2014). Causality in African Ontology. *Asian Journal of Humanities and Social Sciences*. 2. 1. 54-60.

- Kanu, I. A. (2014). Freedom and Determinism in African Ontology. *Asian Journal of Humanities and Social Sciences*. 2. 1. 47-53.
- Kanu, I. A. (2017a). Igwebuike as a Complementary Approach to the Issue of Girl-Child Education. *Nightingale International Journal of Contemporary Education and Research*. 3. 6. 11-17.
- Kanu, I. A. (2017b). Igwebuike as a Wholistic Response to the Problem of Evil and Human Suffering. *Berkeley International Journal of Contemporary Education Research*. 3. 6. 56-72.
- Kanu, I. A. (2017c). Igwebuike as an Igbo-African Ethic of Reciprocity. *Berkeley Journal of Humanities and Social Sciences*. 115-124.
- Kanu, I. A. (2017d). Igwebuike as an Igbo-African Philosophy for the Protection of the Environment. *Nightingale International Journal of Humanities and Social Sciences*. 3. 4.. 28-38.
- Kanu, I. A. (2017e). *Igwebuike as the Consummate Foundation of African Bioethical Principles*. *Nnadiabube Journal of Philosophy*. 1. 1. 1-13.
- Maurier, H. (1985). *Philosophie del'Afrique Noire*. Saint Augustine: Anthropos Institute.
- Maziarz, E. A. (1987). 'Philosophy', in *The New Catholic Encyclopedia Vol II*. London: Chapman.
- Odum, Eugene P. (1971). *Fundamentals of Ecology*. 3rd ed. Saunders, New York.
- Ogungbemi, D. (2007). *Philosophy and Development*. Ibadan: Hope Publication.
- Ozumba, G. O. (2004). African Metaphysics. *Quodlibet Journal*, 6. 3.
- Plato, *Metaphysics* 1026. A. Retrieved 20th May 2011. <http://search.sweetim.com/search.asp?q=Metaphysics+Plato&ln=en&src=1002&sf=0>

- Plato, *Theaet.* 155. Retrieved 20th May 2011.
<http://search.sweetim.com/search.asp?q=plato%27s%20theater&ln=en&src=1002&lcr=0>
- Rubio, J. C. (1985). *Simboles del art Cristiano*. Salamanca: Universidad Pontifica
- Schulze, Ernst-Detlef, Erwin Beck; Klaus Müller-Hohenstein. (2005). *Plant Ecology*. Springer, Berlin.
- Tempels, P. (1997). Bantu Philosophy. In E. Chukwudi Eze (Ed.). *African Philosophy: An anthology*. Oxford: Blackwell Publishers.
- Ukaegbu, J. O. (1991). *Igbo identity and personality vis-à-vis Igbo cultural symbol*. Salamanca: Universidad Pontifica

Chapter Two

TOWARDS AN AFRICAN ECO-PHILOSOPHY

Anthony Uzochukwu UFEAROH, PhD

Department of Philosophy

Nnamdi Azikiwe University, Nigeria

tonito2006@yahoo.co.uk

&

Emmanuel Kelechi IWUAGWU, PhD

Department of Philosophy

University of Calabar, Nigeria

&

Hillary Oguejiofor EZE, PhD

Department of Philosophy and Religion

Alex Ekwueme Fed. University, Nigeria

Executive Summary

African eco-philosophy is yet to receive due attention from philosophers. As the ecological crisis that presently ravages the world assume an alarming level that threatens the very existence of life on the planet, the dire need of an African eco-philosophy that can serve to create a theoretical platform for addressing the pressing ecological issues from African perspective becomes all the more glaring. The present work, therefore, attempts to articulate in brief, what can be considered as core issues that engage the discourse on African eco-philosophy. The approach is predominantly analytical. It is the thesis of the paper that authentic African philosophy should not only have an African cultural bent which serves as the substrate but also involves critical intellectual gurgitations on the reality, truth and values about the environment. These pertain to the core ontological, epistemological and ethical issues in any philosophical discourse

that worth its name. It is in this manner that authentic African eco-philosophy can be built, the paper submits.

Keywords: African, eco-philosophy, culture, ontological, epistemology and ethics.

Introduction

Eco-philosophy (ecological philosophy) remains an important aspect of philosophy yet to be given due attention by African philosophers. That the African continent is generously endowed with mega flora and fauna is undeniable. This, however, does not translate to mega or avalanche of eco-literature in the continent. It may rather sound somehow disappointing to say that there is dearth of works on eco-discourse both within and outside philosophic circles. William Slaymaker affirms that “the African echo of global green approaches to literature and literally criticism has been faint” (683). It is clear that Slaymaker here employs a mild euphemism to describe the glaring dearth of African eco-literature. The mildness of Slaymaker juxtaposes with the harshness of Hochman Jhan who disparagingly remarks that, “whites have more time for nature than blacks” (190). This is another extreme that not only reminiscences David Hume (236) and G.W. F. Hegel’s (91) infamous outburst about Africans but also epitomizes the misconception about the black and their relationship with the natural environment. In a way, the articulation of African eco-philosophy serves as self-affirmation and self-realization.

Non-philosophical African eco-literatures seem to outweigh eco-philosophical and eco-theological literatures. For instance, eco-philosophy is conspicuously absent in the list of burgeoning branches and subsidiaries of African philosophy enumerated in the well-researched book *Themes, Issues, and*

Problems in African Philosophy, edited by Isaac Ukpokolo (2). This lacuna was, however, compensated by one of the contributors Kevin Behrens who made a clarion call on the need for developing African eco-philosophy. Jonathan Chimakonam's book *African Philosophy and Environmental Conservation*, written or rather edited in the most eco-friendly Nigerian city of Calabar is yet another laudable effort. There are other works relating to African philosophy and ecology; some focusing primarily on environmental or eco-ethics. There is, therefore, need for a more systematic articulation of African eco-philosophy. The approach is analytical. Analysis here entails not only breaking through the concepts and language but also the socio-cultural praxis in order to x-ray the philosophical underpinnings that undergird them. In the first section, therefore, the researchers highlight the urgent need for African eco-philosophy that will go beyond ethical considerations to other core philosophical engagement about the African ecology. The second section takes up the ontological issues which we consider to be the most fundamental in the discourse on African eco-philosophy. The third section focuses on the African epistemology and its ecological implication. The values that undergird human-nature relationship in the Igbo world are highlighted under the African eco-ethics in the fourth section. Then comes the conclusion.

The Need for African Eco-Philosophy

Firstly, the peculiarity of African denigration is such that African is premised on what has been described as African close affinity with nature. African philosophy *per se* began as a reaction to the denigration of the African. An aspect of the polygenetic reason for dehumanizing the African is the misconception that the African is incapable not only of discursive thinking but also of appreciating nature; that the black perceives himself as one with nature, etc. This is to say that, the long term exploitation of the black was most times premised on the close affinity which the

African or black is said to share with nature. Authentic African eco-philosophy seamlessly dissipates such misgiving and positively reconstructs such misconceptions. In this way, African eco-philosophy becomes a quest for self-assertion and self-realization.

As a developing continent, Africa faces a barrage of ecological crisis some internally generated, others externally induced. Livelihood here is mostly eco-based so exploitation of the environment through lumbering, fishing, bush-burning and other means become inevitable. Similarly, as a developing continent, though industrialization and technological development have positive sides which include economic growth, there are negative repercussions on the environment such as depletion of natural resources and degradation of the environment. To enjoy the omelet, eggs have to be broken.

It is well known that Africa is affected by environmental degradation caused by foreign countries. "The warming caused by huge consumption on the part of some rich countries has repercussions on the poorest areas of the world, especially Africa, where a rise in temperature, together with drought, has proved devastating for farming" (Pope Francis no 51). This is simply to say that Africa, in a way, bears the brunt of ecological degradation caused by more economically and technologically advanced countries.

On general note, ecological issues fundamentally concern human relationship with non-human entities and on the concrete existential conditions of man on the planet earth. The threatening level which anthropogenic environmental devastation has assumed calls for redefinition of man's relationship with the natural world. As a response to this clarion call, the glaring need

for African eco-philosophy becomes urgent environmental concern which cannot be ignored without regrettable and terrible consequences. Chiras (5) sums it in these terms: "Together, the problems of overpopulation, depletion, and pollution have created an ecological crisis - a threat to the integrity of natural systems of which humans are part, and therefore a threat to the survival of human life.' The present research is part of the African response to the environmental challenges.

The response becomes more *ad rem* given that modern science and technology may not solve all. Therefore, there is dare need for behavioral change (belief and principles). If authentic ecological approach must necessarily incorporate both social and philosophical approaches. Indeed, if questions of justice to the environment cannot be properly addressed without reference to the human person; if the cry of the earth is to be heard simultaneously with the cry of the poor, the wretched of the earth, then Africa must speak up. The ultimate question now is *Africa, quid teipsam dicis?* (meaning, Africa what do you say about yourself?).

The Ontological Basis of African Ecology

The discourse on African eco-philosophy necessarily begins with consideration of the status of the natural environment in African ontology and worldview. This is the metaphysics that shapes and undergirds all forms of relationship in the African lifeworld; human and non-human entities alike. The relevance of ontological inquiries to ecological discourse can never be over-emphasized. It is the bedrock upon which other philosophical discourses on human relationship with the biotic and abiotic environment are built. Similarly, the African cosmology serves as a prism for understanding and interpretation of reality in the African world. According to Kanu, African cosmology is broadly

divided into two domains- spiritual and physical; visible and invisible. The invisible sphere is realm of spiritual entities: the Supreme Being, gods, ancestors, and the unborn. The visible realm is the abode of humans and other biotic and abiotic entities. These two worlds impinge upon each other. In fact the division is merely metaphorical. The African world has tripartite memberships of the dead (the living dead), the living and the unborn (15). Life is a continuum. This has ecological implications as it addresses the questions about inter-generational justice and obligations.

African worldview is hierarchically structured. This is gradient of forces: first on the list is God/Creator, *Chukwu*. After God come the arch-patriarchs, founders of different clans. Next are the dead of the tribe or the ancestors existing according to their order of primogeniture. After the ancestors (the living dead), we have the living human beings. Then come the animals, vegetables and minerals. The above hierarchy may give a false impression of radically atomized universe of existence. The beings are however inextricably united as we shall see. Man for instance is in constant interaction with even nonhuman.

The ontological status of the natural or non-human entities in African worldview inheres from the pervading conception of being or reality in general in African ontology. Placid Tempels the father of African philosophy submits that for the African, "being is force and force is being" (35). In other words, reality is dynamic, volatile, permeating and interpenetrating. This is quite unlike western conception of being. Parmenides, the father of western metaphysics defines "being" as "that which is." This static conception of being greatly differs from African understanding of being as "force." Furthermore, the African perceives reality as interconnected. Innocent Asouzu

affirms that anything that exists serves as a missing link of reality (277). This is the basis of complementary ontology in African philosophy.

Indeed, an outstanding feature in African lifeworld is the fact of ontological relatedness or concatenation. Tempels emphasizes this cosmic unity or harmony by asserting, that “the world of forces (beings) is held like a spider’s web of which no single thread can be caused to vibrate without shaking the world network” (41). In other words, the hallmark of African worldview is the cosmic harmony that exists amidst all the beings or realities within the African world human, non-human alike. This has special implication for eco-philosophy as both human and non-humans are well accommodated and secured within this cosmic and ecological arrangement. Harmony and balance are core issues in the discourse on ecology. This opinion finds an echo in Lewis Herber who opines that, it is impossible to achieve a harmonization of man and nature without creating a human community that lives in a lasting balance with its natural environment” (Ecology and Revolutionary Thought). Ecological balance is a *conditio sine qua non* in the African universe.

Finally, the exploration of the animistic tendency in African culture might be of great interest to African eco-philosophers and eco-theologians alike. The interest in nature and supernatural is quite pronounced in the African world such that almost every natural occurrence has some bearing with the supernatural. Some authors tend to describe The African has Pansychic such that could be described as animism.

Epistemology: African Mode of Perception vis-a-vis Human-Nature Relationship

The understanding or perception we have about nature or non-human entities shapes our relationship with them (Ahmed Hussien 52). How does the African perceived herself in relation to non-human entities? Does she see herself as part of nature or apart from nature? A predatory epistemology that perceives the human as apart of nature will potentially lead to domination and discriminatory ecology whereas an epistemology that perceives the human as part and parcel of nature will ultimately lead to inclusive ecology nay eco-friendliness.

African epistemology, which according to Jimoh, “is essentially rooted in African ontology” (125), perceives reality as unitary, concatenated and dynamic. It is through this epistemic prism that realities in African worldview are interpreted and knowledge claims authenticated. The African mode of cognition and its ecological implications is yet another vital aspect of African epistemology that needs to be explored. Leopold Senghor (24) had hinted on this mode of perception that is shaped by the unity of the knower and object of knowledge which compelled Senghor to aver that “*l’émotion est nègre comme la raison hellène*” (emotion is African while reason is Hellenic).” Masolo (489-490) echoes further in these emphatic terms:

Leopold Senghor had hinted on the traces the African’s tendency toward communitarianism to a way of life rooted in his experience of the world. It is the way he feels and thinks, in union not only with all other people around him but “indeed with all other beings in the universe: God, animal, tree, or pebble.” Senghor’s earlier work, including his definition of Negritude, had addressed the naturalness with which Africans embrace

and participate in nature rather than relating to it cognitively from a distance.

Senghor's epistemology presents an eye opener to the nature of African epistemology and its ecological implications. An exploration of the ecological implications of such epistemology will serve to enrich our understanding and relationship with other entities around us.

African Eco-Ethics

African eco-ethics is onto-ethical norms that guide human relationship with environment – biotic and abiotic. Anchoring on African communal ontology, the African ecological ethics has both communal and religious colouration. Communal because, just like traditional African ethics which has ripple effects on the communal living, so also evil done to the non-human environment affects the community. The transcendent serves as the custodian. This gives the religious colouration. It can also be described as eco-based ethics as some hierophanic natural entities such as land, trees, rivers and so on, play vital role. Land for instance is held sacred for being the abode of the earth goddess who is predominantly the chief custodian of morality. It is often said of an offender that he or she has committed a crime against “the land.” Barnabas Okolo (21) affirms the communal dimension in these captivating terms: “being-with as a characteristic of the African mode-of-being-in-world means also openness to nature in positive and sacred relationship.” African ecological ethics remains an indispensable aspect of African eco-philosophy. Exploration of the African eco-ethics constitutes part of the core engagement of African eco-philosophy.

Conclusion

The present paper has not only harped on the need for African eco-philosophy but also articulated in brief, core issues that could engage the discipline. Africa is a continent with rich flora

and fauna but bedeviled with series of ecological problem. The denigration of the African sequel to the phenomena of slavery and colonization is also reflected on the slur cast on the ability of the African to appreciate nature. African eco-philosophy thus becomes in a way, a quest for self-affirmation.

Toeing the line of the traditional quadrivium in philosophy, the paper nibbled on the *trium* of ontological, epistemological and ethical concerns that constitute the primary engagement of African eco-philosophy. The African ontology and epistemology underscore the relatedness of beings thus predisposing for eco-friendliness. This is guided by the African eco-ethics. The need for balance in the eco-community is also highlighted. In as much as these are not exhaustive of the preoccupation of, it is believed that these would serve to foster further or more reflections on African eco-philosophy.

Works Cited

- Asouzu, Innocent. *The Method and Principles of Complementary Reflection in and Beyond African Philosophy*. University of Calabar Press, 2004.
- Behrens K. "The Imperative of Developing African Eco-Philosophy." *Themes, Issues and Problems in African Philosophy* edited by Isaac Ukpokolo, Palgrave Macmillan, 2017, pp. 191-204.
- Chiras, D.D., *Environmental Science: A Framework for Decision Making*. Addison-Wesley Publishing Company, 1989.
- Drengson, Alan. "Ecophilosophy, Ecosophy and the Deep Ecology Movement: An Overview." <http://www.ecospherics.net/pages/DrengEcophil.html>. Accessed 17/09/2017.

- Hegel, G. W. F. *The Philosophy of Histor.* trans. J. H. Clarke, Dover, 1956.
- Herber, Lewis (Murray Buckchin). *Ecology and Revolutionary Thought.* (Pamphlet)
<https://theanarchistlibrary.org/library/lewis-herber-murray-bookchin-ecology-and-revolutionary-thought>, (1964). Accessed 5th Oct., 2021.
- Hochman, Jhan. *Green Cultural Studies: Nature in Film, Novel, and Theory.* University of Idahosa Press, 1998.
- Hume, David. *The Philosophical Works of David Hume.* Vol.III, Adam Black and William Tait, MDCCCXXVI.
- Hussen, Ahmed M. *Principles of Environmental Economics: Economics, Ecology and Public Policy.* Routledge, 2000.
- Jimoh, A.K. "An African Theory of Knowledge." *Themes, Issues and Problems in African Philosophy*, edited by Isaac Ukpokolo, Palgrave Macmillan, 2017, pp.121 - 136.
- Kanu, A. "Dimensions of African Cosmology". *Journal of African Philosophy, Culture and Religion*, Vol. 2, No. 2: 533-555, 2013.
- Kanu, I. A. *A hermeneutic approach to African Traditional Religion, philosophy and theology.* Augustinian Publications: Nigeria, 2015.
- Kanu, I. A. *African philosophy: An ontologico-existential approach to classical and contemporary issues.* Augustinian Publications: Nigeria, 2015.
- Kaphagawani Didier N. and Jeanette G. Malherbe. *Epistemology and the Tradition in Africa.* The African Philosophy Reader, edited by P.H. Coetzee and A.P.J.Roux, Oxford University Press, 2002, pp.259 – 280.
- Masolo, D.A. "Western and African Communitarianism: A Comparison." *Companion to African Philosophy*, edited by Kwasi Wiredu, Blackwell, 2004, pp. 483-490.

Anthony Uzochukwu UFEAROH, PhD, Emmanuel Kelechi IWUAGWU, PhD & Hillary Oguejiofor EZE, PhD

Okolo, C. B. *What is to be African?*. Cecta, 1993.

Pope Francis. *Laudato Si.*' (Encyclical Letter), 2015.

Senghor, Leopold. *Liberté 1 Négritude et Humanisme*. Seuil, 1964.

Slaymaker, William. "Ecoing the Other(s): The Call of Global Green and Black African Responses." *African Literature: An Anthology of Criticism and Theory*, edited by Tejumola Olaniyan and Ato Quayson, Blackwell Publishing, 2007, pp. 683-697.

Tempels, P. *Bantu Philosophy*. Presence Africaine.

Ukpokolo, Isaac. "Introduction: The Shifting Focus of Philosophy in Africa." *Themes, Issues and Problems in African Philosophy*, edited by Isaac Ukpokolo, Palgrave Macmillan, 2017, pp. 1-10.

Chapter Three

ECOLOGICAL SIGNIFICANCE OF MMUO MMIRI (WATER SPIRITS) IN IGBO PHILOSOPHY AND RELIGION

Ikechukwu Anthony KANU, OSA, PhD
Department of Philosophy and Religious Studies
Tansian University, Umunya, Anambra State
ikee_mario@yahoo.com
ORCID iD: 0000-0003-1977-202X

Executive Summary

The Western approach to the management of the eco-system, which is materialistic and based on consumerism, has had very serious consequences on the environment leading to the present ecological crisis. The encounter of the African continent with the Western world, during the colonial era most especially, had its own consequences on the thinking of the African people and on their approaches towards the environment, such that the African society now lacks the adequate traditional or indigenous spiritual principles needed for the preservation of the eco-system. Before the advent of modernity, Africans related with cosmic forces associated with particular cosmic elements like water, mountains, forests, sky, etc., which established an attitude of respect for these dimensions of the natural world. Gradually, this attitude has been replaced with that of alienation and disengagement. The consequences are the misuse and exploitation of the physical environment including the water, air, land, forests, etc. The emergence of eco-spirituality is a reaction to the Western materialistic and technological approach to the environment, which lacks the depth for the formulation of a profound relationship with nature, the absence of which has led to the emergence of devastating consequences on the natural

world. There is now a growing interest at international level in the way that indigenous people interacted with and managed their environment before the advent of modernism; there is also a growing interest on how best to protect and preserve this knowledge. This piece is a response to the need for indigenous approaches towards the management and sustainability of the environment, which are connected to the broader framework of the people's cosmology and worldview. While there are a few papers written on *Mmuo Mmiri*, there is hardly literature that discusses its relationship with the eco-system or its ecological relevance in Igbo traditional societies. This work, therefore, focused on water spirits or mermaids within the context of the Igbo-African cosmology with the purpose of seeing how the relationship with this spirit force enhanced the preservation of the environment. The phenomenological and analytical methods of research were patronized. It submitted that through indigenous approaches, the African people were able to preserve and maintain their environment.

Keywords: Eco-system, Water Spirit, Eco-System, Ecology, *Mmuo Mmiri*, Environment

Introduction

The advent of Modernity, science and technology, and more so, Christianity among religions like Islam had very serious consequences on the pattern of the traditional life of the African people. Achebe (1958) captures and articulates this in his award-winning novel titled: *Things Fall Apart* in which he describes the precolonial life in southeastern Nigeria before the advent of the West in the 19th century and the consequence of this encounter. The consequence among others is that the African society now lacks the adequate traditional or indigenous spiritual principles needed for the preservation of the environment. Before the advent of modernity, Africans related with cosmic forces

associated with particular cosmic elements like water, mountains, forests, sky, etc. (Tilley 1994, Hirsch and O'Hanlon 1995). The relationship that the African people had with nature established an attitude of respect for these dimensions nature. Gradually, this attitude has been declined. The consequences are the misuse and exploitation of the environment.

The emergence of eco-spirituality is a reaction to the Western materialistic and technological approach to the environment, which lacks the depth for the formulation of profound and unexploitative relationship with nature, the absence of which has led to the emergence of devastating consequences on the natural world. There is now a growing interest at the international level on the way that indigenous people interacted with and managed their environment before the advent of modernism; there is also a growing interest on how best to protect and preserve this knowledge (UNCED 1992, Gray 1997, Posey and Dutfield 1996). This new interest is anchored on the fact that the present ecological crisis has revealed the limitations of the Western approach.

This piece is a response to the need for indigenous approaches to the management and sustainability of the environment, which are connected to the broader framework of the people's cosmology and worldview. It, therefore, focuses on water spirits within the context of the Igbo-African cosmology. This piece intends to respond to questions, such as: how can a more profound relationship with nature be rebuilt? How were traditional Africans able to maintain a respectful relationship with nature? What contribution did the relationship of African traditional societies with water spirits make to the preservation of the eco-system? In our time of modernity, is it possible to tap from these spiritual forces for the conservation of the

environment? These questions and more are the primary concerns of this piece.

Theoretical Framework

The adaptation theory will be employed for this work so as to determine its framework. Adaptation is from the word 'adapt', and to adapt means to "make fit". It is a very popular concept in the area of evolutionary biology and is used to imply the process by which species of animals or plants or any other living organisms become fitted into their environment- this fittedness could be in their structure, physiology, genetics, locomotion, reproduction, development, etc., (Mayr 1965, 1988). Adaptation as a process explains the reason for the diversity of species (Mayr 1963, 1982). This process implies that the organism must be viable in all stages of its development and at all stages of its evolution. This adaptation ensures that the organism survives its ecological niches.

In relation to the counter between Christianity and traditional religion, it implies a selection of certain rites and customs, purifying them and inserting them as rituals in Christianity where they have apparent similarities. In recent times, its attraction has declined as it only expresses a superficial phenomenon. Paul VI (1969) emphatically urges for a more radical adaptation when he says, "Adaptation of the Christian life in the fields of pastoral, ritual, didactic and spiritual activities, is not only possible, it is even favoured by the Church. It is in this sense, you may, and you must, have an African Christianity" (pp. 797-798). This notwithstanding, adaptation has in recent times been criticized as a pseudo-imposition and of not taking the local culture seriously. Shorter (1988) criticizes adaptation as conveying "an activity that is peripheral, non-essential, and even superficial. It was realized that the concept of

“adaptation” contained within itself the seeds of peripheral Western superiority and domination” (p. 150).

In the area of eco-spirituality, it understands African eco-spirituality as a process of the adaptation of eco-spirituality in such a manner that it fits the African environment or worldview. It is in this regard that the incorporation of African traditional religious thoughts and images such as *Mmuo Mmiri* is introduced into the discussion on eco-spirituality. The purpose of this is to communicate eco-spirituality in the language that the Igbo-African understands, using categories that are common to him or her, or a part of his or her worldview. For a better understanding of the process of adapting eco-spirituality through the employment of *Mmuo Mmiri* as an Igbo-African religious category, there is the need to understand what *Mmuo Mmiri* stands for in Igbo traditional religion.

Water Spirits in African Religion

The African universe is made up of a myriad of spirits. These spirits have their abode on mountains, hills, rivers, seas, oceans, trees, roads, markets, caves, brooks, lakes and forests. Their abode also determines the place where they are worshipped, and also the residence of the priest of the deity. There are sociological factors that affect the positioning of these divinities, based on the principle that the African is a social being who operates in the society. There are various names for these water spirits depending on the particular traditional religion. Some of these water spirits include:

- a. **Erzulie-Freda-Dahomey:** In Voodoo religion, it belongs to the group of sea gods. She is coquettish, sensual and extremely extravagant. In every shrine where a room is dedicated to her you find her white and rose-coloured

garments, a dressing table with wash basin, soap, towel, comb, lipstick and nail file kept for her use (Jahn 1958).

- b. **Egwe:** means *the rolling one*. In Voodoo religion, it is also the ruler of the sea. It is not surprising that fish and boats are its symbols. It protects sea farers and enjoys the thunder of cannons and the salute of ships (Kanu 2015).
- c. **Damballah:** In Voodoo religion, he is the god of fertility and usually lives in springs and swamps. He is symbolized by a snake and whoever he mounts during voodoo ceremonies hisses like a snake and creeps around on the ground in a snake-like curve, climbs up the rafters and hangs with the head downward like a snake (Jahn 1958).
- d. **Osun:** In Yoruba religion, Osun is the wife of *Songo* and the goddess of the river of Osun. She is a benevolent divinity, evident in her name, 'the goddess of children'. She specializes in restoring the fruitfulness of barren men and women. Since streams and rivers are her abode, gifts to her are thrown into the river or stream. Although she specializes in child giving, she could also be approached to solve other problems.
- e. **Oya:** In Yoruba religion, Oya is a female divinity, referred to as the goddess of the River Niger. If Sango was an Alafin of Oyo, *Oya* is believed to be his first wife, who wept after his death, weeping so severely that her tears formed the River Niger. She could neutralize the anger of *Sango*. Whenever he spits fire during his fits of anger, *Oya* neutralizes his anger with rain. Like Osun, she is also worshipped in rivers and streams.

Moving from the Yoruba and Voodoo religions to the Igbo traditional religion, one finds the same spirit force but with a different nomenclature known as *Mmuo Mmiri*.

Mmuo Mmiri in Igbo Religion

In Igbo-African ontology, spirits inhabit mountains, trees, the ground, the sky, the water- rivers, seas, oceans, canals, etc. The spirit that inhabits the water are popularly called *Mmuo Mmiri* in Igbo or *Mammy Water, Mami Wata, Mami Wota* in pidgin English. It occupies a prominent place in the pantheon of Igbo-Africa gods and goddesses.

Mmuo Mmiri is a female deity with variant names, and the sustainer of sea life, the bringer of hope, provider of help and protection, the bringer of gifts and exotic things. Indeed, she is said to hold the key to the gate that leads to the world of solutions. Whenever the Igbo pray, he or she does not forget to add *ka uzo anyi buru uzo mmiri*, which means, “may our journey follow the path of the stream”. It is she who guides people to exotic lands, and chooses to permit human beings to travel and reach their destinations on top of the sea (Kanu 2013, 2015).

In Igbo cosmology, Jell-Bahlsen (2014) avers that *Mmuo Mmiri* is an ancient and important deity, which underscores awe for female fecundity, sacredness of life and water. This deity is supremely beautiful, colorful, sparkling, elusive and benevolent, however, equally dangerous as she can cause turmoil among a people, diseases and even bring about death. Unlike *Ala* deity, she usually has multiple spouses and can grant children to human beings. Those who are her devotees find in her a source of fertility, children, food, health, wealth, etc. The *Mmuo Mmiri* represents the female dimension of the Igbo universe and a role

model of female achievement. Her icon among the Igbo is the python, crocodile and tortoise.

Ecological Significance of *Mmuo Mmiri*

In view of the current environmental degradation, this proposes that the traditional approach towards the conservation of the environment, as in the case of the spirituality around *Mmuo Mmiri*, can be integrated with the modern approach towards the conservation of the environment for the emergence of a new conservation paradigm. The degradation of the water environment can be traced to the disrespect and disdain for the sacredness of this element, usurped by modernity and non-indigenous religions. The result of this attitude towards this spiritual force is a gradual breakdown in the relationship between the human person and nature.

What *Mmuo Mmiri* did in relation to the protection of the environment in traditional Igbo societies is that it provided protection for water bodies associated with it. This protection was provided through the taboos that were associated with this spirit being. What gave force to these taboos was the power of the force associated with it. Thus, people kept these taboos because they feared the consequences that will come from this spirit being if the taboo is not respected. These taboos include not fishing in that water body on some particular days or not fishing at all in a particular water body as the fishes are considered the children of the water spirit. The crabs, crocodile, tortoise, snakes, water birds and frogs were seen as messengers of the water spirit and so are not to be harmed. Such water bodies become the breeding ground for species of organisms for other connecting water bodies, with a great deal of biodiversity obtainable therein. *Mmuo Mmiri* associated with particular water bodies gives a fundamental identity to the water body in question. These water bodies are, therefore, named according to the identity of the

particular water spirit that inhabits it. This does not only give an identity to the water body but gives it a voice. The water body that has no ear to hear or mouth to speak, through this spiritual power now has a voice, can be heard, listened to and represented in discussions about the preservation of the water body. Through this representation, it is not the human community that decides the future and manner of interaction with the water body; the water body can now make a contribution in this direction. When human beings begin to fail in keeping to what has been agreed, the water spirit can send a message to the community regarding the impending danger consequent upon their actions.

Very interesting is the image with which these water spirits are depicted. In Igbo cosmology, these water spirits are symbolized with the image of a woman. It is, therefore, not surprising that many members of the community take advantage of this feminine character and go to her for several needs, mostly, for the fruit of the womb; more so, because she is a woman, most women feel that she will understand their plight of bareness better than any other deity. This human, feminine and benevolent character of the water spirit creates a ground for a relationship with the human world. As such, the water body is not looked upon as merely a cosmic element but as a part of the human community that must be respected.

Conclusion

As water resources continue to diminish in different parts of the world as a result of the global climate change, exploitation of nature and growth in population, and the growing need for an alternative approach to relating with nature, this work has discussed the place of *Mmuo Mmiri* within the context of indigenous ecological knowledge systems with a view to bringing out the manner in which traditional African societies

managed their environment before the advent of the West. The Igbo-African understanding of *Mmuo Mmiri* brings in a new meaning to the understanding of water bodies, not just as a vital resource for use but as an element endowed with agency and power which connects with the Igbo people. Thus, the water body is a manifestation of the great spirit that is resident in the water. This work strongly believes that an integration of this indigenous approach with the modern approaches will yield more fruit in the effort towards addressing ecological crisis in the world.

References

- Achebe, C. (1958). *The things fall apart*. England: Heinemann.
- Gray, A. (1997). *Indigenous rights and development: Self-determination in an Amazon community*. Providence: Berghahn Books
- Hirsch, E. and O'Hanlon, M. (1995). *The anthropology of landscape: Perspectives on place and space*. Oxford: Clarendon Press
- Jahn, J. (1958). *Muntu: An outline of the new African culture*. New York: Grove Press.
- Jell-Bahlsen, S. (2014). *Mammy water in Igbo culture: Ogbuide of Oguta Lake*. Enugu: Eze Books.
- Kanu, I. A. (2012 a). The secularity of sacredness of the priestly office in African traditional societies. *Journal of Integrative Humanism*. 2. 1. 219-225.
- Kanu, I. A. (2013). The Dimensions of African Cosmology. *Filosofia Theoretica: Journal of African Philosophy, Culture and Religion*. 2. 2. 533-555.
- Kanu, I. A. (2015a). *A hermeneutic approach to African Traditional Religion, philosophy and theology*. Augustinian Publications: Nigeria

- Kanu, I. A. (2015b). *African philosophy: An ontologico-existential approach to classical and contemporary issues*. Augustinian Publications: Nigeria
- Mayr, E. (1963). *Animal species and evolution*. Boston: Belknap Press of Harvard University.
- Mayr, E. (1965). Cause and effect in biology. In D. Lerner (ed.). *The Hayden colloquium on scientific method and concept*. USA: Free Press.
- Mayr, E. (1982). *The growth of biological thought: Diversity, evolution and inheritance*. Boston: Belknap Press of Harvard University.
- Mayr, E. (1988). *Toward a new philosophy of biology: Observations of an evolutionist*. Boston: Belknap Press of Harvard University.
- Paul VI (1969). Closing discourse to all-African symposium. *Tablet* 233. 797-798.
- Paul VI (1975). An address delivered during the Symposium of Episcopal Conferences of Africa and Madagascar, held in Madagascar.
- Posey, D. A. and Dutfield, G. (1996). *Beyond intellectual property: Towards traditional resource rights for indigenous peoples and local communities*. Ottawa: International Development Research Center.
- Shorter, E. (1988). *Towards theology of inculturation*. Maryknoll: Orbis.
- Tilley, C. (1994). *A phenomenology of landscape: Places, paths and monument*. Oxford: Berg

Chapter Four

ENVIRONMENTAL SUSTAINABILITY AND THE QUEST FOR GLOBAL SOCIAL ORDER IN FRANCIS' LAUDATO SI

Philip Osarobu ISANBOR

Department of Philosophy

Seminary of All Saints, Uhie-Ekpoma

osarobuisanbor@gmail.com

Executive Summary

The anthropological imports of the environment as our common home are envisaging that human life and its existential relevance for any developmental creativity and innovation to be dependable on the valuation of the same environment that houses the human family, following the conviction of Francis' *Laudato Si*. This is the basis on which the understanding of the human person is inseparable from the demands for environmental sustainability, and as such, meaningful and integral development been dependent on the institution of the courses of global social order. As recognized in Francis' *Laudato Si*, the human family has been facing the effects of environmental pollutions and degradation as a result of imposing influences of scientific and technological culture associated with globalised socialization and civilization. Hence, adopting speculative and prescriptive methods of analysis, the essay concludes that the human society, irrespective of its global influences and values, cannot talk about the possibility of global social order without due references to the environmental sustainability that indispensably and existentially sustain the human family and guarantees safe and healthy future generations.

Keywords: Human Person, Global Social Order, Francis' *Laudato Si*, Environmental Sustainability, Human Family, Science and Technology, Integral Ecology.

Introduction

The political and economic projections for the possibilities of global social order have been challenged by some imperialistic, hedonistic and consumerist developmental cultures or policies. They are mainly hinged on the values of global conflicts and violence which have been generating the nefariousness of environmental pollution and degradation, and sustaining the fears of global warming and the rapidity of climate change (see, Isanbor and Obinyan 2018: 238; Isanbor 2018: 120; Isanbor and Bature 2018: 60). But, there have been some developmental longing for the peace and justice through the respect, protection and promotion of the human family. They become very dominant in the minds of many people as they civilize along the values of science and technology which impose more fears of environmental pollution and degradation rather than environmental continence and sustainability. This is a global concern breeding the culture of global disorderliness and disintegration as a result of some mismanagement of freedom and creativities. Recognizing that the contemporary world of production and labour been governed by consumerist and hedonist's vision of development, Pope Francis in his *Laudato Si* asserted that:

A consumerist vision of human beings, encouraged by the mechanisms of today's globalized economy, has a levelling effect on cultures, diminishing the immense variety which is the heritage of all humanity. Attempts to resolve all problems through uniform regulations or technical interventions can lead to overlooking the complexities of local problems which demand the active participation of all members of the community. New

processes taking shape cannot always fit into frameworks imported from outside; they need to be based in the local culture itself. As life and the world are dynamic realities, so our care for the world must also be flexible and dynamic. Merely technical solutions run the risk of addressing symptoms and not the more serious underlying problems. There is a need to respect the rights of peoples and cultures, and to appreciate that the development of a social group presupposes an historical process which takes place within a cultural context and demands the constant and active involvement of local people from within their proper culture. Nor can the notion of the quality of life be imposed from without, for quality of life must be understood within the world of symbols and customs proper to each human group (no. 144).

For Pope Francis in his social encyclical: *Laudato Si*, situating the environment as a common home as the basis of integral development and for the transcendental valuation of the human person, recognizes that the concern for “integral development includes efforts to bring about an integral improvement in the quality of human life, and this entails the settings in which people live their lives. These settings influence the way we think, feel and act. In our rooms, our homes, our workplaces and neighbourhoods, we use our environment as a way of expressing our identity” (Francis 2015: no. 147). The developmental concerns for environmental sustainability demand that the human persons, irrespective of their colour, religion and any other social, cultural economic and political convictions and beliefs, should think and act rightly and ethically in advancing the world around them for the purpose of common living, survival and salvation, especially with reference to the values of creation. He observed that, “we make every effort to adapt to our

environment, but when it is disorderly, chaotic or saturated with noise and ugliness, such overstimulation makes it difficult to find ourselves integrated and happy (Francis 2015: no. 147). That, creating orderliness in every possible disordered and chaotic situations should readily and responsibly show the level of respect the human persons are investing in themselves in order to sustain the environment that has been entrusted to themselves by the creator, God.

Such consciousness for integral development through the valuation of integral ecology is replicated in Pope Francis' recent social encyclical: *Fratelli Tutti*, issued in 2020. Through it, Pope Francis reiterates his concerns for the needs for environmental sustainability through social relationship and fraternity. He initially generated this concern in his earlier social encyclical: *Laudato Si*, and recognized therein that everything about the environmental sustainability are about the values of one's relationship with other persons, nature and God (see, Gaudalli 2017: 80). Pope Francis recognized the sociological conviction of development within the socio-psychological effects of economic operations of anthropological individualism, escapism, particularism and forced patriotism that are leading humankind to misguided separatism, undue collectivism and throwaway culture. With *Fratelli tutti*, he sustains the campaign for integral development on the valuation of social friendship that recognizes the warmth of ourselves as brothers and sisters rather than neighbours. He believes that through this consciousness, the environment can be sustained as our common home for common development and future, as a philosophy of *Otherness of Living*. According to Pope Francis:

When we speak of the "environment", what we really mean is a relationship existing between nature and the society which lives in it. Nature cannot be regarded as something separate from ourselves or as a mere setting in

which we live. We are part of nature, included in it and thus in constant interaction with it. Recognizing the reasons why a given area is polluted requires a study of the workings of society, its economy, its behaviour patterns, and the ways it grasps reality. Given the scale of change, it is no longer possible to find a specific, discrete answer for each part of the problem. It is essential to seek comprehensive solutions which consider the interactions within natural systems themselves and with social systems. We are faced not with two separate crises, one environmental and the other social, but rather with one complex crisis which is both social and environmental. Strategies for a solution demand an integrated approach to combating poverty, restoring dignity to the excluded, and at the same time protecting nature (2015, no. 139).

Pope Francis' concerns for the management of ecological crises project the elimination of the elements of monopolistic tendencies of development and the politics of diplomatic suppression and subjugation of weaker nations by the economic and military treaties. This is inherent in his issuance of the social encyclical: *Laudato Si*. With this encyclical, we understand that development comes with its challenges, and sometimes, they are inevitable (see, Gaudalli 2017: 80). But, the employment of human freedom demands its checkmating of human activities and values for the sake of global social order. This is about the existential and transcendental understanding of integral development in relation to the values of the environment as our common home, common heritage that should sustain our common future. This is about the model of development the global humanity is adopting through the innovative powers of creativities and intelligibility, and the effects of these aspects of development become a common threat to our sense of common good and survival.

Hence, the objective of this essay is hinged on the consideration of the values of the human person through the possibility of global social order. It recognizes that the possibility of global social order is based on the sustainability of the environment as a common home and heritage for the human family. Adopting the speculative and prescriptive method of analysis, the essay assesses Francis's *Laudato si* on the valuation of the environment as our common home, which indicates the global nature of the human person in realizing global social order. Therefore, the essay is directed to sustain the idea that overcoming the effects of socio-political individualism and the imposing misguided and greedy collectivism associated contemporary capitalistic industrialism, which have been occasioned by scientific and technological civilization, demands the needs to revalue our actions and choices for the sustainability of the human family through the protection, promotion and preservation of the environment.

Environment and the Quest for Global Social Order in *Laudato Si*

Francis' *Laudato si* which is issued on the 24th May, 2015, hinged on the sustainability of the environment as our common home. Having the environment as our common home is about the sustainability of the human family in the faces of the ecological challenges and problems associated on the nuclear bombing, false and unchecked industrializations, indiscriminating mining and bio-chemical researches and the likes. These concerns of integral ecological development are about the attainment of global social order, and Pope Francis' *Laudato si* is hinged on the philosophical tradition of the *Catholic Social Teachings*. With this active consciousness for the possibility of environmental sustainability and developmental peace, we simply remember and refer to the socio-ecclesiological philosophies of the 20th century Pontifical encyclicals of John XXIII's *Pacem in Terris*, Paul

VI's *Populorum Progressio*, and John Paul II's *Laborem Exercens*, *Sollicitudo rei Socialis* and *Centisimus Annus*. These were basically concerned with the values for global peace and justice in the age of scientific and technological revolution and advancement that were epistemologically against the values of human life, rights and dignity. According to Pope Francis' *Laudato Si*:

The urgent challenge to protect our common home includes a concern to bring the whole family together to seek a sustainable and integral development, for we know that things can change. The creator does not abandon us; he never forsakes his loving plan or repents of having created us. Humanity still has the ability to work together in building our common home (2015: no. 13).

This social concern for environmental sustainability is strongly and faithfully retained and substantiated by the current 21st century pontifical social encyclicals of Pope Benedict XVI's *Caritas in Veritate* and Francis' *Laudato si* and *Fratelli tutti*. From this tradition, Pope Benedict XVI asked the human persons with all sense of rationality to recognize the indispensable fact that the natural environment has been gravely damaged by our irresponsible actions and choices. Also, that our social environment has suffered damage dependent on our values for the sustainability of our natural environment. Both are ultimately due to the same evil associated with mismanaged and misdirected freedom, and that are no indispensable truths to guide our lives only when we recognize that our freedom is limited rather than limitless (see, Francis, 2015: no. 6). Such consciousness for authentic development should be simply based on the need for integral expression of human actions and choices in truth for the sustainability of human social friendship, fraternity and values.

Before now, socially theologising towards the reconstruction of society from the effects of capitalism, as a social philosophical teaching of the church, Leo XIII's issued *Rerum Novarum* in 1891. This was the first encyclical of the *Catholic Social Teachings*. With it, Pope Leo XIII championed the course of change of attitude of human labour towards the values of true and meaningful development. Hence, there are needs to revalue the productive relationship the employees and the employers in a capitalist-driven society. Pope Leo XIII reacted on the effect and nature of the capitalist society in the attainment of authentic development of his time. Over the times, this culture of alienation and subjugation associated with capitalist productive consciousness is still prevailing, and capable of sustaining increasing rate of membership of the lower class. Even before now, the church and other social institutions have been very concerned, and this is evident in the works of St Thomas Aquinas on the teleological valuation of the human person within the indispensability of faith and reason, and St Augustine of Hippo on the respect of human personhood through the operation of divine illumination. The fact is that it is the concern of everybody, and because, it is the nature of the human person to act and reasonably act responsibly, which is of necessity for him or her to express his or her essence. He or she has the right to have the full benefit of his or her labour, and it is the duty of the government to provide him or her a job to do, and in return, it is his or her duty to return adequate services that justify his or her earnings.

Seeing the global effects of environmental pollutions and degradations in the faces of climate change, global warming and the extinction of animal species, the contemporary Roman Pontiffs with their social teaching as an apparatus of social reformation, restructuring and re-engineering, have been calling for global responses to overcome the trending nature of

imperialistic, hedonistic and consumerist nature of development. Pope John XXIII calls for global ethics against global environmental deterioration. Pope Paul VI seeks for authentic social and moral progress for fighting against some ecological concerns, and he regards such effects as a tragic consequence of unchecked human activity through false and misguided industrialization and urbanization. Pope John Paul II on his part with a long history of *Catholic Social Teachings* constantly sues for moral continence against consumerist lifestyle of development and imposing social nature of throwaway culture. Pope Benedict XVI longs for the values of truth for the realization of integral ecology where the wholeness of nature becomes the avenue of integral development (See, Bals 2016: 11). Recently, with the issuance of *Laudato si*, Pope Francis substantiates the concerns of his predecessors by considering the sustainability of the environment on the valuation of human brotherliness rather than neighbourliness, and with it, the environment being our common home where the human existence and living can be integrally sustained.

Hinged on the understanding of the disintegrating nature of integral ecology of Francis' *Laudato Si*, humanity has entered a new era in which our technical prowess has brought us to a crossroad of development in our imperialistic and hedonistic World of values. This is mainly on the dilemma between the positivity and negativity of the employment of science and technology. For instance; we see the employment of science and technology for the cures of illnesses and diseases and for the inventions of new ones. There are increasing tendencies in the search for common good and solidarity, reinforcing the search for solutions to the effects of climate change and global warming (See, Bals 2016: 12). It demands that common good in its variety of manifestation remains a basis of integral human development,

and including the effects of common survival and sustainability of the planet earth, national interest of nation states, primary actors in international politics, promotion of democratic principles and good governance, maintaining international peace and security, developing friendly relations among nations and promoting social progress, better living standards and human rights of every citizens of the planet (see, Oyeshola 2017: 187, Gaudalli 2017: 82). With the revolutionary advents of science and technology, humans' conceptions of peace and development have greatly changed and such conceptions revolved around the strengths and contents of human creativities and innovations (see, Isanbor and Obinyan 2018: 240; Isanbor 2018: 122; Isanbor and Bature 2018: 62). Even in education and morality, it is seen that what matters to secular humanity are what is pragmatic and realistic, and many times, away from what is idealistic and ethical for the realization of integral development.

The Challenges of Globalization and the Existentiality of Common Developmental Interests

Globalization has remained an imposing and inevitable system of contemporary socialization and civilization of human goods, services, values and interests. It is a system of the closeness of humankind in a miniature community of values and interest of development, technically and socially engineered by the employment of science and technology. It has been a concern by and for everyone that been lost in the values of no values outside the public values. According to Oyeshile, the problems have been that:

Apart from deaths and wanton destruction of life and property there has been stagnation in terms of human resources development as well as material development. The education of the children in particular has suffered. Scientific and technological advancement has also been truncated in most cases.... We then ask: what are the

causes of ethnic conflicts? Scholars of various shades of opinion have come up with different reasons for ethnic. Two major factors have been adduced for these conflicts. These are the control of political power and struggle over economic resources. The two are related in the sense that in a multi-ethnic state, the ethnic group that controls the political power invariably controls economic resources, whether or not the resources are found within the region of the dominating unit. These problems of control of political power and lopsided distribution of economic resources subsequently lead to marginalization of some groups or outright cheating of other groups in the authoritative allocation of resources (Oyeshile 2011: 11-12).

From the weighty nature of human lived experiences, we have been observing that the policies and politics of development have given many versions for the understanding of the human person as an agent of development. With these variation of interests, the global consciousness presents the indispensable interconnectedness of the human persons, and limiting the individuality of the person in the faces of public values, where science and technology have been praised as the saving grace of human true socialization and civilization, and sustaining the courses of defending human life, rights and dignity through vibrant and reliable solidarity. But, for contemporary relativistic and hedonistic cultures of development, human life and death of the human person have become the values of what science and technology can provide, and losing their existential-transcendental essences in each passing of socialization and civilization to the imposing and advancing robotic engineering, socialization and civilization.

Only value that matters to the globalised humanity is development of imperialistic, hedonistic and consumerist world of socialization and civilization. Such social, political and economic currencies of secularist model of development has been situating of thrust values of the human persons to be deceived by the imposing wave of technological science and advancement. This appeared to “have been liberating them from the authority of God, technological science promised them unending joy, peace, and immortality; but has failed to deliver any of these goods, leaving them more confused and disoriented” (Ehusani 1991: 241). The human persons as subjects of lived experiences and development seem to be at mercies of they have produced, And today, within the secularist development associated with the values of science and technology, “human persons are blinded by materialism, poisoned by consumerism, enslaved by greed and humiliated by aggression, and appear to have lost their sense of meaning and purposes” Ehusani 1991: 241). But, to redeem the human persons from the effects of what they have produced, it becomes highly imperative to readdress our values and interests based on the principles of common good, solidarity and universal destination of goods, and therefore to formulate a new vision of reality on the foundation of the “civilization of love”, and the hope of a new world directed by the values of the *Otherness of Living*, that should be holistically friendly, functionally transcendental, and godly humane, and ultimately saved by the presence of God.

As contemporarily put, the talk of globalization is that of science and technology, and they remain very imposing and influential in determining the fate of morality, development, politics, environment, economy, and even religion. For we recognize that “today’s young people, especially, know that the progress of science and technology can produce not only new material goods but also a wider sharing in knowledge” (John Paul II 1980: no.

10). With such trunks of knowledge, the globalization is becoming enslaving and demeaning, limiting the values of one's individuality, missing in the crowds of interests and values. Understandably, "globalization must not be a new version of colonization. It must respect the diversity of cultures which, within the universal harmony of peoples, are life's interpretative keys" (PCJP 2005: no. 366). It is creating superficial cultures of secluded groupings of persons bounded and blinded by fading crowded relevance of development without faith being created but evolved. It is a society where everyone is free but enslaved by the culture that determined their freedom. In particular, we should also have in mind that such globalized culture of development "must not deprive the poor of what remains most precious to them, including their religious belief and practices, since genuine religion convictions are the clearest manifestation of human freedom" (PCJP 2005: no. 366). According to Greg Nnamani (2005):

Largely through human activity, life on earth faces serious danger of extermination. Since the dawn of modernity, humans have sequentially polluted, degrade and destroyed the very environment which sustains their lives and those of other living organisms. Not only have they succeeded in making the environment hostile to life, they have also turned it into a breeding ground for usual and unusual diseases and sickness.

This is the fate of globalised humanism in the faces of the environmental pollution and degradation, where everyone suffers the effect of one's mismanagement of freedom and creativity. This globalised humanism recognized that the human persons cannot, therefore, realize their potentialities in a hostile and warring environment (See, Agbo 2010: 36; Ograh 2014: 111). For the human persons to become what they should be along the values of values and creativities, according to their essential

nature, it demands that they manage the conditions of development that do not differentiate peoples, but respect their values, rights and cultures according to the dictates of natural law (Cf Gaudalli 2017: 81; Nnamani 2013: 53). This demands that they understand their make-ups of being bounded together and seeking interdependence, and not involve in relationships of conflict or opposition but express and give practical and functional meaning to their fundamental unity

Hence, contemporary humanism recognized that the valuation of the human person is indispensable hinged on the valuation of the environment, and that the operational epistemology and ethics of human actions on the environment determine what to happen to human generations. Hence, it will not be at of place to say that, humanity recognized “the main developmental problems of our time seem to be the lack of integration and valuation of science and technology, where the same science and technology are expressively moving faster and industrially imposing than the human person are following it morally and spiritually, such consciousness thereby is making life tilt towards one direction, towards self-destruction, rather than promise. The faster technology moves, the more materialistic and consumerist we become, and the less spiritual and moral we become too. According to Francis’ *Laudato Si*:

We urgently need a humanism capable of bringing together the different fields of knowledge, including economics, in the service of a more integral and integrating vision. Today, the analysis of environmental problems cannot be separated from the analysis of human, family, work-related and urban contexts, nor from how individuals relate to themselves, which leads in turn to how they relate to others and to the environment. There is an interrelation between ecosystems and between the various spheres of social interaction, demonstrating yet

again that “the whole is greater than the part (2015, no. 141).

Naturally, the environment cannot be duly sustained by the employment of science and technology, despite its global influences and values in promoting urbanization, industrialization and communization. Rather, only by love and in love with which such employment of science and technology are adopted. One can only love when he or she acts and makes choices rightly and wisely within the operation of faith and reason that define one’s humanness. For Pope Francis, “human beings too are creatures of this world, enjoying a right to life, and happiness, and endowed with unique dignity. So we cannot fail to consider the effects on people’s lives of environmental deterioration, current models of development and the throwaway culture” (Francis 2015: no. 43). So, we must keep faith and reason working in safeguarding the environment in order for the environment to keep us, and to save us from self-alienation and self-destruction (from possible self-extinction). Only what will keep the environment safe and healthy are responsive and responsible persons who long for the institution for the courses of global social order. It is on the conviction to the save ourselves from our mismanaged employment of our freedom and intelligence, and longing to sustain the values of creation and protect the factors of future human generations.

This concern of Francis’ *Laudato Si* is extended in his social encyclical: *Fratelli tutti*, where he believes that the human environment can be sustained through healthy and integral human social fraternity and relationship. In *Fratelli tutti*, Pope Francis recalled the indispensable relevance of the courses of integral human development in the management and preservation of the natural recourses for the relationship of global social order, and therein, he asserts that; “to care for the

world in which we live means to care for ourselves. Yet we need to think of ourselves more and more as a single family dwelling in a common home (Francis, 2020, no. 17). To think of ourselves as humans is to think of the environment that can sustain such natural hope and conviction of being truly human. We can only be human when the human family is properly defined among other existents as rational and intelligent agents of development. As against this common consciousness of development, we remember that “such care does not interest those economic powers that demand quick profits. Often the voices raised in defense of the environment are silenced or ridiculed, using apparently reasonable arguments that are merely a screen for special interests” (Francis, 2020, no. 17). This is a culture of monopolistic consciousness of development that has been sustaining the politics of greed, wickedness and selfishness among nations, and working towards to the courses of global disorder, insecurities and ecological crises. “In this shallow, short-sighted culture that we have created, bereft of a shared vision, it is foreseeable that, once certain resources have been depleted, the scene will be set for new wars, albeit under the guise of noble claims” (Francis, 2020, no. 17). More still, the dilemmatic nature of industrialized development demands that the human persons act responsibly and ethically in investing their creative and innovative talents and knowledge in protecting, preserving and promoting the created World, through some responsive changes of lifestyles by promoting the values of human togetherness and brotherliness.

Environmental Sustainability for Global Social Order: On the Values of the Human Family

The reign of global social order is dependent on global response for the respect of human life, rights and dignity. This is peace in relation to the valuation of integral development. For this conviction of development, Johan Galtung has earlier before

Pope Francis' *Laudato Si* on the human roots of the ecological crisis through the fears of new biological and chemical technologies for the execution of wars, identifies three conceptual outlooks of peace for integral development. First is the conventional idea of peace and peaceful socialization to be as a synonymous with the operational conceptualization and relevance of social stability and equity. Second is the idea of peace as the absence of organized collective violence, be it racial, ethnic or international (negative peace). Third, is peace as a synonym for all other good things in the world community, particularly cooperation and integration between human groups, with less emphasis on the absence of violence (positive peace) (Galtung 1967: 12). With this classification, Galtung presents the view that peace is the absence of structural violence, and not just the absence of war (Galtung 1969: 167). Galtung's position on peace mandates a prior definition of violence; which he explains thus; "violence is everything which prevents the full realization of innate somatic and mental human potentials... violence is anything which produces a gap between the physical and mental potentials of human beings and their actual conditions" (Galtung 1969: 168). But, for Pope Francis, the attainment of global social order as the culture of peaceful development is hinged on the sustainability of the human family in regards to the environment as our common home. As a matter of fact, the whole issues of development and its enduring principles are centred on the promotion and protection of the human family. The family is the cradle of civil society and development. It is in great measure of the human family life that the destiny of any nation is fostered. But, in many ways, through the imposing effects of environmental pollution and development, this measure for the sustainability of human family has been hampered.

With such consciousness, Pope Francis' *Laudato Si* projects the common understanding that the values of life should be the determinant factors for all policies and principles of development through human labour and production. For Pope John Paul II, just before Pope Benedict XVI and Pope Francis, recognized many obstacles to the respect of families, and for example, today, the various forms of the erosion of marriage, such as free unions and "trial marriage", and even pseudo-marriages between people of the same sex, are instead an expression of anarchic freedom that are wrongly made to pass as true human liberation. This pseudo-freedom is based on a trivialization of the body, which inevitably entails the trivialization of the person. Its premise is that the human being can do to himself or herself whatever he or she likes. Thus, with such consciousness, the human body becomes a secondary thing that can be manipulated, from the human point of view, and used as one likes. Licentiousness, which passes for the discovery of the body and its value, is actually a dualism that makes the body despicable, placing it, so to speak, outside the person's authentic being and dignity (See, Bals 2016: 13). A society built on a family scale is the best guarantee against drifting off course into individualism or collectivism. This is because, within the family the individual as a person is always at the centre of attention, and remains as an end for any developmental policy, and never as a means (see, PCJP 2005: no. 213). Then, due attention must obviously be given to responsible procreation, which among other things has a positive contributions in realizing integral development. And in societal concern for human's authenticity, the quest for integral development urges the exercises of human actions in respecting human values through proper exercises of his or her sexuality and its responsive socialization.

What is needed then is for human societies and the families who live within them, often in a context of struggle between the

civilization of love and its opposites, to seek their solid foundation in a correct vision of the human person and of everything which determines the full “realization” of his or her humanness (PCJP 2005: no. 215). The human family has the growing tendency for developing its potentials and capacities, and this should be done adequately in accommodating environment, where peace, justice and unity are the bedrocks of meaningful and integral development. The theme of development can be identified with the inclusion-in-relation of all individuals and peoples within the one community of the human family, built in solidarity on the basis of the fundamental values of justice and peace (Benedict XVI 2009: no. 54). The human society works to eliminate the effects of individualism and materialism that do not promote cultural symbiosis needed. In the promotion of peace and justice, it is the duty of any State to protect the interest of the human family. The family is anterior to the State which is composed of families. The State, therefore, enjoys a subsidiarity function in relation with the family. It exists to help the family and enable its members to develop themselves and fulfill their obligations under natural law. Therefore, the State has no authority whatever so to act as to prove itself more of a hindrance than a help to the families who compose it. The State must respect and protect families against the assaults of sectional interests.

Hence, the question of global social order remained central on the kindness towards the weak, poor and needy in the society-owing that, the wealth of the earth belong to them- for the eyes of the divine, everyone is poor, weak and in need. We owe one another the truth of justice and equity considering the weak, poor and needy in willingness to pay due wages and salaries to labourers and having just terms of commerce, especially in terms of managing our surplus values, and not playing games with

common resources of the people in the names of political gimmicks. Global social order is possibly instituted on the values of the human person- possibly suggests the institutionalization of “I-Thou” relationship in a transcendental subjectivity of the human person. It is a culture of oneness in which the individual sees his or her very self beyond himself or herself, especially in the subjectivity of others- seeing “me in you” and “you in me” consciousness of warmth. This warmth does not lead the individual out of his or her very subjectivity and authenticity, but established the individual in the consciousness of keeping himself within the existential-ontological relevance of the others. For participation is possible when there are interactions with peoples whose needs have been duly taken care of, owing to the philosophy of “I-Thou” relationship, or better still, “We” relationship with a consciousness that enliven every human pains and joys, which transcends the individuality of the person to the social integration of interdependency of the persons.

Conclusion

From the foregoing, we realized that the quests for the environmental sustainability are hinged on the values of global social order. This will remain a global affair or concern for integral development as the ontological values of the human person are the same anywhere and anytime. Such commonness of importance shows the indispensable valuation of the human family in the faces of contemporary quests for scientific and technological development. It is for the sake of balancing environmental biodiversity, as greatly emphasized in Pope Francis’ *Laudato Si*, that there are indispensable and conscious needs to respect, promote and protect human life, rights and dignity with regards to what should be modified in the environment. This is owing to the increasing rate of societal conflicts and violence, demands of biotechnologies and advancement on nuclear weapons and technologies. Such

consciousness of development demands advanced responsible stewardship of the human family and the ecology.

Therefore, the opinions raised here in line with the conviction of Francis' *Laudato Si* on the indispensability of environmental sustainability in relation to the valuation of the human family suggest that the attainment of global social order is hinged on the values of human life, rights and dignity. This concern recognized that the value of life is absolute and of highest degree when compared with other human values; and this should guide the reasons and contents of our actions and choices. It demands that, amidst the plethora of value judgments associated with our current scientific and technological civilization, we should make sure, reasonably certain that human life, rights and dignity remain the most valuable factors of development we have. It is on this conviction for true and integral development that global social order is made possibly realizable sustainable when the environment is made our common home through our conscious actions and choices, and which values cannot be monopolized by any individual or group of persons.

References

- Agbo, J. N. (2010). Is globalisation a process or a product? In A. B. C. Chiegboka, T. C. Utoh-Ezeajugh, and G. I. Udechukwu (Eds.). *The humanities and globalization in the third millennium* (pp. 26-39). Nigeria: Rex Charles and Patrick.
- Bals, C. (2016). *A successful provocation for a pluralistic global society: The encyclical Laudato Si' – A Magna Carta of integral ecology as a reaction to humanity's self-destructive course*. Published in Politics and Society. Bonn: Germanwatch. As assessed via: www.germanwatch.org/en/12697, on the assessed on the 15th September, 2021.
- Benedict XVI, pope (2009). *Caritas in veritate*. Social encyclical on the realization of the authentic human development in charity in truth. Vatican City: Libreria Editrice Vaticana.
- Cox, G. (1986). *A way of peace: the philosophy of peace as action*. Mumbai: Paulist Press.
- De Soras, A. (1963). *International morality*. New York: Hawthorn Books.
- Ehusani, G. O. (1991). *An afro-Christian vision "Ozovehe": toward a more humanized world*. New York: University Press of America.
- Francis, pope (2015). *Laudato si*. Social encyclical on the environment as our common home. Vatican City: Libreria Editrice Vaticana.
- Francis, pope (2020). *Fratelli tutti*. Social encyclical on the fraternity and social friendship. Vatican City: Libreria Editrice Vaticana.
- Galtung, J. V. (1967). *Theories of peace: a synthetic approach to peace thinking*. International Peace Research Institute, Oslo.
- Galtung, J. V. (1969). Violence, peace and peace research. *Journal of Peace Research*, Vol. 6, No. 3, pp. 160-172.

- Gaudelli, W. (2017). People, pope and planet: a hermeneutic and spectacle analysis of *laudato si'* for global citizenship educators. *Journal of International Social Studies*, Vol. 7, No. 1, pp. 70-91.
- Isanbor, P. O. (2018). Morality against environmental degradation: a review for sustainable development. *SCIENTIA: Plasu Journal of General Studies*, Vol. 1, No. 1, pp. 119-126.
- Isanbor, P. O. and Bature, A. I. (2018). Morality, integral ecology and development in Francis' *laudato si*: A Review. *PHILECTICS: Benin Journal of Philosophy*, Vol. 1, No. 2, pp. 56-63.
- Isanbor, P. O. and Obinyan, V. E. (2018). "African meta-ethical appraisal of Echekwube's regeneration thesis for global peace development." In F. O. Ekhaiase, et al (eds). *Book of Proceedings of 3rd University of Benin Annual Research Day Conference* (pp. 237-240) Benin City: University of Benin.
- Omeregbe, J. (2007). *Social-political philosophy and international relation*. Lagos: Joja Educational Research and Publishers.
- Oyeshile, O. A. (2011). *Reconciling the self with the other: an existentialist perspective on the management of ethnic conflicts in Africa*. Ibadan: Hope Publications Limited.
- Oyeshola, D. (2017). International politics, common good and the challenges of climate change: In search of solutions. In J. T. Ekong (ed). *Politics and the common good*. (pp. 185-211). Ibadan, Dominican Institute: The Michael Dempsey Centre for Social and Religious Research.
- Pontifical Council for Justice and Peace (PCJP) (2005). *Compendium of the social doctrine of the church*. Nairobi: Pauline Publication.

Chapter Five

GLOBAL WARMING, GLOBAL CLIMATE CHANGE AND ITS IMPACTS ON HUMAN HEALTH

Fernando Alcoforado, PhD

Barcelona University

Barcelona, Spain

[*falcoforado@gmail.com*](mailto:falcoforado@gmail.com)

Executive Summary

This article aims to present the impacts of global warming and the consequent global climate change on human health and the solutions to avoid its harmful consequences against humanity.

Keywords: Global warming; Global climate change; Sustainable development; Human health.

Introduction

This article aims to present the impacts of global warming and the consequent global climate change on human health and the solutions to avoid its harmful consequences against humanity. In order to achieve this goal, it is necessary to promote a profound transformation of current society, which has been extremely destructive of the planet's living conditions. Therefore, it is essential to build a sustainable society, replacing the current dominant economic model throughout the world with one that takes into account man integrated with the environment, with nature, that is, the model of sustainable development. The Paris Agreement was analyzed based on the COP 21 organized by the UN through which 195 countries and the European Union defined how humanity will fight global warming in the coming decades, as well as was analyzed literature related to global

warming and climate change to extract the conclusions that point out how to replace the current development model with the sustainable development model.

Global warming, climate change and the Paris Agreement with COP 21

Global warming is a climatic phenomenon that, to a large extent, represents an increase in the average temperature of the Earth's surface that has been occurring over the last 150 years. The IPCC (Intergovernmental Panel on Climate Change), instituted by the UN (United Nations) states that the global warming observed is most likely due to an increase in the greenhouse effect and there is strong evidence that global warming is largely due to human action. Many meteorologists and climatologists consider it proven that human action is actually influencing the occurrence of the phenomenon. There is no doubt that human activity on Earth causes changes in the environment in which we live. Many of these environmental impacts result from the unsustainability of society's current development model.

The unsustainability of society's current development model stems from the fact that it is responsible for the depletion of the planet's natural resources, the degradation of the planet's environment, the rapid increase in global temperatures and consequent climate change that can become catastrophic for humanity. These facts increasingly show the need for the paradigm that guided the development of human society since the 1st Industrial Revolution needs to be profoundly modified. The main environmental threat is represented by climate change that to avoid it the Paris Agreement was signed at the COP 21 organized by the UN.

After several years of negotiations, deadlocks, timid advances and failures, 195 countries and the European Union produced at

COP 21, in Paris, a global agreement that defines how humanity will fight global warming in the coming decades. For the first time, all countries in the world are committed to reducing greenhouse gas emissions, strengthening resilience (ability to return to its natural state, especially after a critical and unusual situation) and uniting in a common cause against climate changes. The agreement is not mandatory for all goals by the countries as the majority intended.

The Paris Agreement's stated aim was to contain the global average temperature rise which is 15 °C well below 2 °C above pre-industrial levels and to make efforts to limit the temperature rise to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change. The reference to the 1.5 °C reduction target came about thanks to the joint action of island countries, which will be condemned to long-term extinction by the rise in sea level resulting from global warming that would raise the temperature by 2 °C.

The world's leading climate scientists have warned that there are only two years of global warming to reach a maximum 1.5 °C increase in the planet's average temperature, beyond which even half a degree increase will significantly increase the risks of drought, floods, extreme heat and poverty for hundreds of millions of people. To keep the temperature rise between 1.5 °C and 2 °C, the half-degree difference can prevent corals from being completely eradicated and relieve pressure on the Arctic. There is a scientific basis that the 1.5 °C temperature rise is not just a political concession. There is growing recognition that considering a 2°C increase as a goal is dangerous.

Two main aspects were not considered in the Paris Agreement: (1) the long-term goal of decarbonizing the economy by 2050 or

cutting at least 70% of global greenhouse gas emissions by the middle of the 21st century; and 2) the goal of limiting the increase in the planet's average temperature is not accompanied by a roadmap stating how the world intends to reach less than 2 °C or 1.5 °C, which weakens the pursuit of this goal.

An issue that was not addressed at COP 21 concerns the extinction of wars that are also largely responsible for the environmental deterioration of the planet. Among the countless dire consequences of wars are the devastating effects on the environment. The bombing of military targets and civilian populations, the intense movement of military vehicles and troops, the large concentration of combat flights, the missiles launched on cities and the destruction of military and industrial structures during all these conflicts also cause the emission of metals and other substances that contaminate soil, water and air. In addition to environmental contamination, it is also necessary to consider the modification of natural landscapes and the long-term loss of biodiversity, whether due to the presence of land mines or chemical agents dispersed in the environment. This was also not considered at COP 21.

The Paris Agreement does not resolve the fundamental issues and the voluntary targets indicated by each of the nations are not sufficient to ensure that the increase in global warming will stay well below 2 degrees Celsius towards 1.5 degrees Celsius by the year 2100. Furthermore, the document does not present proposals that contribute to the construction of a sustainable development model on our planet in place of the current unsustainable and chaotic model of capitalist development.

Finally, it is important to emphasize that the Paris Agreement is also silent on the construction of a global governance system that is capable of ordering the planet's environment to prevent its

degradation that contributes to global warming and catastrophic climate change and to avoid proliferation of conflicts in international relations that worsen every day, fueling the occurrence of wars, including a devastating new world war. Given these serious omissions at COP 21, it can be said that we will hardly be able to try to avoid catastrophic changes in the climate of planet Earth in the 21st century.

Global warming, climate change and its impacts on human health

Global warming will have a huge impact on the health of the world's population. Global warming will lead to an increase in heart attacks and respiratory illnesses according to a study by several researchers who emphasize that they only now recognize the repercussions of global warming on human health. This study considers that the increase in the frequency of hot flashes will lead to a doubling or even a tripling by 2050 of the cases of infarction and respiratory diseases.

There will also be an increase in the number of people affected by asthma, infections transmitted by mosquitoes, cases of food poisoning and viral infections such as avian flu and atypical pneumonia (SARS). According to researchers, Australia will be one of the nations most affected by climate change and its impacts on health, with a growing number of victims of heart attacks and the multiplication of cases of asthma, food poisoning, infectious diseases, obesity, diabetes and mental disorders. Climate change directly affects human health through extreme weather events, the spread of vector-borne and other infectious diseases, and aggravated air pollution. Indirectly, climate change affects human health, causing malnutrition, worsening working conditions and creating mental stress.

Extreme heat is one of the leading causes of climate-related death. The combination of climate change and urbanization continues to intensify heat extremes around the world. Thermal stress affects productivity and can increase the risk of cardiovascular, respiratory and kidney diseases. Even heating with a 1°C temperature rise potentially reduces productivity by between 1% and 3% of those working outdoors. Poor populations without access to air conditioning will be the most affected, as they will find it more difficult to escape the extreme heat. Heat stress combined with physical exertion and lack of hydration can cause chronic kidney disease (CKD), which decreases kidney function over time. CKD disproportionately affects poor populations and manual workers who work in hot thermal conditions.

Food security is determined by environmental, social, political and economic factors. Food availability problems will become more pronounced as global temperature rises. There may be a reduction in the availability of food. For every degree of temperature increase, world wheat production falls by 6% and world rice production falls by 10%. Changes in rainfall, increase in the planet's average temperature and changes in soil composition are determining factors for crop growth and quality. Climate change could reduce the nutritional value of crops, causing under nutrition to be considered by some researchers as the greatest potential health impact of climate change this century. New research suggests that in a warmer world insect metabolism increases, causing them to eat more and increasing crop losses.

There may be water shortages. Climate change is putting further pressure on water security, altering the hydrological cycle, just as warming glacier layers are impacting freshwater supplies. The Middle East, India, Antarctica and Greenland are facing

significant freshwater loss. 80% of the world's population is already facing threats to its water security, including water availability, demand for water and its pollution. Populations living in low-lying areas are at greater risk of flooding and contamination of their freshwater sources by rising sea levels and soil salinization. Higher water temperatures, increased rainfall and droughts can increase water pollution and harm human health.

Vector-borne diseases may occur. Climate change causes changes in temperature, precipitation and humidity, and as a result, increases the risk of disease transmission. Climate change is expected to change disease patterns with some regions facing increases while others may see reductions. Malaria, dengue, Japanese encephalitis and tick-borne encephalitis are infectious diseases transmitted by insects that will be caused by climate change. Air pollution is currently one of the main health risk factors, leading to significant increases in mortality and morbidity due to cardiovascular and pulmonary diseases. Air pollution around the world often caused by the use of the same fossil fuels that cause climate change can make climate change worse. Air pollution is a big problem especially in urban areas.

Conclusions

Science shows that the impacts of climate change on human health in a global warming scenario with an increase in temperature of 1.5°C are lower than those expected in a scenario of a 2°C increase which, in turn, are significantly smaller compared to the situation created in a 3°C rise scenario. Therefore, limiting global warming to 1.5°C has substantial health benefits for people. But even in this scenario climate change will still create health problems for many.

Global warming and climate change tend to produce a real crisis of humanity by threatening its survival, making it essential to build a new model of society or a new world order based on the model of sustainable development that makes each country act at a level planetary in an interdependent and rational way with common goals, without which the survival of human beings and life on the planet could be put in check.

To change this situation that threatens the future of humanity, it is necessary to promote a profound transformation of current society. The unsustainability of the current model of capitalist development is evident as it has been extremely destructive of living conditions on the planet. Therefore, it is essential that a sustainable society is built, replacing the current dominant economic model throughout the world with one that takes into account man integrated with the environment, with nature, that is, the sustainable development model, this goal not considered at COP 21.

To build a sustainable society, the following objectives should be pursued:

1. Reduce global carbon emissions, promoting changes in the current global energy matrix based on fossil fuels (coal and oil) by one based on renewable energy resources, hydroelectricity, biomass, solar and wind energy, to prevent or minimize global warming and, consequently, the occurrence of catastrophic changes in the Earth's climate as well as in the current global transport matrix aiming at its rationalization and the use of electricity and renewable fuels to replace fossil fuels.
2. Reduce nitrous oxide emissions to meet the UN target of limiting Earth's warming to 2°C.
3. Improve energy efficiency by developing actions to achieve energy savings in the city and countryside, in

- buildings, agriculture, industries and transport in general, thus contributing to the reduction of global carbon emissions and, consequently, avoid the greenhouse effect.
4. Make motor vehicles and equipment for domestic, agricultural and industrial uses more efficient, buildings are designed for maximum natural lighting, natural cooling and heating savings, agriculture and industry are modeled to require the least amount of energy resources and raw materials, also contemplating the self-production of energy with the use of residues from its production processes based on reverse logistics and, finally, new transport alternatives from the bicycle to the high-capacity ones based on railroads are used, among other initiatives.
 5. Combat soil, air and water pollution, reducing waste by recycling used and discarded materials.
 6. Restore and stabilize the biological basis by making land use follow the basic principles of biological stability (nutrient retention, carbon balance, soil protection, water conservation and preservation of species diversity) and make the rural areas have greater diversity than today with balanced land management where there is crop rotation and species cultivation, there are no wasted crops, tropical forests are conserved, there is no deforestation to obtain wood and other products, new trees are planted, there is efforts to contain desertification by turning degraded areas into productive lands, the extensive use of pastures is eliminated, and the food chain of affluent societies includes less meat and more grains and vegetables.
 7. Adjust population growth to the resources available on the planet, reducing their birth rates, especially in countries and regions with high population growth rates to limit the world population to 10 billion people.

8. Reduce social inequalities, including the adoption of measures that contribute to meeting the basic needs of the world population, such as food, clothing, housing, health services, employment and a better quality of life.
9. Ensuring that economic growth and resulting wealth are shared by the entire population, education services allow the population to increase levels of qualification for work and culture, health services are effective in combating child mortality and contribute to increased life expectancy of the population, all men and women have decent housing and there are public and private investments at the necessary level that contribute to the reduction of mass unemployment as a result of the general crisis of the world capitalist system that tends to worsen in the future.

References

- ALCOFORADO, Fernando. *Catastrophic climate change requires new society model*. Article published in the Journal of Environmental Science Current Research on May 5, 2020.
- ALCOFORADO, Fernando. *Aquecimento Global e Catástrofe Planetária*. Santa Cruz do Rio Pardo, São Paulo: Viena-Editora e Gráfica, 2010.
- CLIMA INFO. *Os impactos das mudanças climáticas sobre a saúde em cenários de aquecimento de 1,5°C - 2°C - e 3°C*. Disponível no website <<https://climainfo.org.br/2018/10/21/impactos-a-saude-do-aquecimento-global/>>.
- REINACH, Fernando. *Aquecimento pode reduzir produção de alimentos*. Estado de São Paulo, 09/08/2006.
- SUSTENTÁVEL BLOG. *Mudança climática impacta a saúde, aponta OMS*. Disponível no website <<https://cebds.org/mudanca-climatica-impacta-a->

saude-aponta-
oms/?gclid=Cj0KCQjwraqHBhDsARIsAKuGZeEcBOb
g5q3Dq9Y8NiiI_qcyATXJoZBNuYtiKeYCwa-
cg3ZLy8bKuTlaAj0nEALw_wcB#.YOsJCOhKjcc>.

UOL Ciência e Saúde. *Aquecimento global provocará aumento de infartos e doenças respiratórias.* 31/10/2007.

Chapter Six

AN ECO-PHILOSOPHICAL DISCOURSE ON THE AFRICAN CHARTER'S RIGHT TO A GENERAL SATISFACTORY ENVIRONMENT AND SOCIO-ECONOMIC DEVELOPMENT

Mark Omorovie Ikeke, PhD

Department of Religious Studies and Philosophy

Delta State University

Abraka, Delta State

ikeke7@yahoo.com

Executive Summary

The African environment is plagued by myriads of socio-economic problems. These problems include environmental racism, extinction of endangered species, resource wars, poor leadership, corruption and embezzlement of public funds, desertification, deforestation, oil spillage, pollution of the atmosphere, climate change, etc. Though the African Charter was proclaimed in 1981, more than 30 years ago, the environmental crisis has become intensified and so the message of the charter is more vital than ever. This paper argues that Africa's future is dependent on a safe and healthy environment. The paper uses the method of critical appraisal to examine the meaning of this right to a general satisfactory environment, as enunciated in article 24 of the African Charter. This examination is done in the light of the socio-economic developmental challenges facing the continent. The paper finds and concludes that this is an innovative right proposed by the African Charter, and that the right should not only be human centered but eco-centric. It concludes that this right is necessary for Africa's present and future generations.

Keywords: Africa, Environment, Rights, Charter, Development, Eco-Philosophy

Introduction

The African continent is plagued by myriads of socio-economic, political, and environment problems. Among the problems and ills that the continent faces are inept and corrupt leadership, youth restiveness, massive unemployment, wars and conflicts over natural resources, electoral fraud, ethnicism, desertification, deforestation, famine, drought, scarcity of healthy drinkable water, atmospheric pollution from extractive activities and gas flaring, and dumping of toxic waste in the oceans. Coupled with these is that the ravages and effects of colonialism, slavery, apartheid, tribal wars, human sacrifices, superstitious beliefs, and the misuse of magic by some are still present in the continent. All these have bedevilled and hampered Africa's social progress and economic development.

Africa is still massively underdeveloped in terms of social infrastructures and scientific-technological amenities needed to build a higher form of civilisation. This underdevelopment is not to be blamed on colonialism which ended many decades ago. Rather attention should be focused on how Africans have continued to underdevelop the continent through bad leadership, embezzlement of public fund, and wars and conflicts. The continent has also experienced underdevelopment through the practices of its own people who care little or nothing about the health and wellbeing of the geographical and ecosystemic environment. African rivers and oceans are inundated with domestic and industrial waste from individuals and factories. African wildlife are hunted and killed year in and year out and illegally exported to the western world. What western oil companies and other mining ventures will do and they will be brought to book in western countries, is perpetuated

by the same western companies in Africa and they get away with it. The recent oil spill in the Gulf of Mexico has caused BP millions of dollars in lawsuits. For all the oil spillage and gas flaring that has taken place in the African continent, very little has been paid in terms of damages and remediation efforts by western companies.

This paper argues that if Africa is to experience rapid and overwhelming socio-economic development it is imperative that its leaders and peoples build and sustain a healthy environment that will promote that development. There is no doubt that African leaders are aware of this and this is why they proclaimed the right to a general satisfactory environment in the African charter. In that charter the Organization of African Unity (OAU) which has transformed into the African Union proclaimed: "All peoples shall have the right to a general satisfactory environment favourable to their development" (art. 24). What is the meaning of this right? What is the significance of this right? What is the relationship of this right to development? These and many other questions this paper will tackle from an ecophilosophical perspective. The paper adopts the method of critical analysis in examining these issues. With this in mind, it is necessary to continue by making some conceptual clarifications and analysis. It is also important to note here that this is not a historical or sociological investigation, and so the background and history of the African Charter will not be examined. The concern here is to do a critical appraisal and analysis of article 24 of the Charter.

Conceptual Clarifications

The African Charter on Human and Peoples' Rights of the Organization of African Unity (OAU) is the human right instrument enunciated by African leaders to state the rights and duties of people of the African continent and the obligations of

states to ensure and fulfil these rights. It was adopted at Nairobi in Kenya on 26th June 1981 and came into force on 21st October 1986. It was proclaimed based on the values and authentic traditional principles rooted in African civilizations. It aims at eradicating all forms of colonialism, discriminations, and social ills from Africa and foster the freedoms and rights of African peoples.

The African Charter is concerned with human rights of individuals and African peoples. The question then is- what is a right? Dowrick (8-9) defines human rights as: "those claims made by men, for themselves or on behalf of other men, supported by some theory which concentrates on the humanity of man, on man as human being, a member of humankind." For Eze (5) "human rights represents demand or claims which individuals or groups make on society, some of which are protected by law and have become part of Lex Lata while others remain aspirations to be attained in the future." Udu cites the Nigerian Supreme Court that defines human rights as:

Human right is a right which stands above the ordinary laws of the land and which is in fact antecedent of the political society itself. It is a primary condition to a civilized existence, and what has been done by our constitution since independence is to have these rights enshrined in the constitution so that the right could be 'immutable' to the extent of the non immutability' of the constitution itself (5).

A right is a fundamental entitlement or benefit that accrues to an individual or a group as a result of the humanity inherent in that person or in the corporate group. Human rights have developed and evolved but essentially they are not given by government. They are discovered and recognized by government and other legal authorities. The reality of the argument for environmental rights of the natural world in contemporary times can invalidate

the above definition. This will not be the place to enter into that debate but paper recognizes and is open to the expansion and progressive understanding of rights.

The African charter, speaks of a right to a general satisfactory environment. Asthana and Asthana (3) are on target to note that:

Everything which surrounds us may collectively be termed as environment. The air which we breathe, the soil on which we stand, water, living and non-living things around. The environment has shaped our lives since time immemorial. It is from the environment that we get food to eat, water to drink, air to breathe and all necessities of day to day life, environment around us constitutes a life support system.

A general satisfactory environment is one that supports life and enables life to flourish. Life here is not just human life but all elements in the ecosystems.

For the African Charter such an environment that is healthy and supports life, and is conducive to human flourishing is good for socio-economic development. A limitation of the African Charter is that its understanding of a general satisfactory environment is casted in the framework of development. Igwe (44) sees economic development as:

Improvement in the standard of living of a given society or country evident in improved literacy, high life expectancy, low poverty and unemployment rates among other indicators typifying especially good standard of living deriving especially from the way and manner goods and services are produced.

Development is a concept that is debated and discussed in all human disciplines including the humanities, social sciences and natural sciences. There is no one meaning of development, but it is proper to give a holistic meaning to the term development. Development can be in various facets of life such as human, economic, social, political, cultural, spiritual, religious, and psychological. The following viewpoint of Onunwa (24) is helpful in development, "which is a complex and multi-dimensional phenomenon, embraces more than mere institutional progress. Some people have for long used institutional progress as the empirical and objective standard of measuring growth, well being and success." Furthermore he writes that: It involves elevation of the entire social system. This implies that development incorporates a feature in which an entire community is involved including the ways they do their things and the environment in which they operate (Onunwa 24). In arguing and discussing what development should involve Onunwa avers in detail that:

It means on one hand, that such elevation in the social system is for the well being of man and the improvement of his environs. In many cases, development has been understood to be synonymous with industrialisation, urbanisation and modernisation as we see them today in many countries. These are quite good if they serve the physical, moral and intellectual as well as spiritual well being of humans in society, but would mean nothing if they create a situation where humanity is crushed in the wheel of individual or group manipulation and tyranny. Technological progress means nothing if it is turned into an industry for production of implements that would lead to mass destruction of life and property in a world where hunger and disease threaten a sizeable percentage of human population. But if it is used to produce implements that can improve life expectancy, food, shelter and health

care, then technology is a mark of human and social development. Thus development understood in this sense should not be turned into an instrument of destruction of the world and human life in it (24).

Regarding the issue of development, the debate has been on whether it should be at the expense of the beautiful natural environment. Is there no ethical limit to economic development and growth? As argued by Ukpak from the late 1960s humankind began to recognize that the reservoir of land, air, and water and other natural resources are not infinite for they could be imperilled by pollution and degradation (23). Various United Nations Conferences such as the one in Brundtland, Rio, and others have extensively discussed the relationship between development and the environment. Development should not be at the expense of the natural world. The dialogue on the relationship between the environment and development, especially the fact that development very often destroys the environment as noted in Rachel Carson's *Silent Spring*, the writings of Holmes Rolston III and many others precipitated the rise of environmental philosophy and ethics in the late 1960s. It is from this vantage point that this paper pursues an ecophilosophical perspective.

By ecophilosophical perspective this paper implies it is a philosophical work from an ecological ethical perspective. Srivastava is right to note that:

Environment ethics is the discipline that studies the moral relationship of human beings to, and also the value and moral status of, the environment and its non-human contents. It all depends on how do we think and act. Environmental ethics or environmental philosophy considers the relationship between human beings and the

natural environment. It exerts influence on a large range of disciplines including law, sociology, theology, economics and geography. There are many ethical decisions that human beings make with respect to the environment (263).

The paper argues that in reflecting on the right to development, it is important to keep the wellbeing of other life forms in mind. Here it is important to look at two ways of looking at the environment-ecocentricism and anthropocentricism. In discussing the issue of the human right to socio-economic development, the wellbeing of other life forms ought not to be neglected.

Interpreting the Right to a General Satisfactory Environment

It is unique and innovative that the African Charter names forthrightly a general satisfactory environment as a human right. What could a general satisfactory environment mean? The Charter never defines what a general satisfactory environment could mean. Even though the charter never defines what this right could mean, it could be affirmed that the meaning of this right is implied in the rest of the Charter. The insights from this section are paraphrased from that Charter. As should be realized, the term environment does not only mean the natural world or nature, it includes the built environment, the social environment, the economic environment, and the geo-cultural environment. You can also speak of the business environment, the educational environment and many other forms of environment. It is all that surrounds the human person who is the center of development that is implied in this article, all that affects human wellbeing and the issues of development. It is important to note that the Charter speaks of a general satisfactory environment. The word general is significant in defining this right. It could imply that on the whole the environment enhances human development or all aspects of the

environment are at stake here, not simply the natural environment or social environment.

This being the case, a general satisfactory environment includes one in which people enjoy their rights and freedoms without discrimination either on the basis of colour, sex, language, political, national, social or other affiliations. An environment in which you are deprived of the exercise of your human rights and freedoms is not a general satisfactory environment. In a general satisfactory environment, individuals are equal before the law and equal protection before the law. They have a right to private property and the right to work and equitable remuneration. They are entitled to access to physical and mental health. In such an environment, there is a right to education and participation in the cultural life of their community. It is important here to state that the African Charter is Afrocentric as it highlights the “promotion and protection of morals and traditional values” of African societies. By implication a general satisfactory environment is one in which African moral values are preserved and transmitted to future generations.

The environment that the African Charter envisions is one in which the family the custodian of morals and traditional values is assisted by the state to perform her duties of transmission of moral values. In such families and in society in general, discrimination against women is to be eradicated. In a general satisfactory environment people have a right to existence and a right to break out of oppression. Peoples have a right to use and dispose of their wealth and natural resources as they desire. The Charter furthermore speaks of the fact that “all peoples shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind” (art.22). It is

interesting to note that the African union defines the right to a general satisfactory environment in the light of development. It does not define the right to a general satisfactory environment on its own ground. It is to enhance and support development that this right is given and enunciated. In this sense the right is not ecocentric but humano-centric. Infact, the situations and circumstances in which people are able to freely exercise their right to economic, social, and cultural progress is what a general satisfactory environment is. In such an environment people have a right to national, international peace and security.

While a general satisfactory environment includes a healthy natural environment that enhances social and economic, and development, the Charter fails to foreground and bring to the front the natural environment as a priority in itself. A general satisfactory environment should be sought not simply for the sake of human persons but for the entire ecosystems. The African Charter defines and conditions the right to a general satisfactory environment as one favourable to development of peoples. The concern of the Charter is peoples not the environment in itself. This is not to deny that the framers of the Charter have no place for the natural environment. Precisely the article by speaking of a general satisfactory environment included the natural environment. A general satisfactory environment includes one in which the natural environment is a healthy and peaceful one. The natural environment is free from pollution and waste. The environment is protected against deforestation, desertification, soil erosion, and biodiversity endangerment.

The framers of the Charter did not only see a general satisfactory environment as that in which peoples are entitled to their freedoms and rights. In a general satisfactory environment, peoples and states have duties. Individuals have duties to themselves, their families, society, state, communities and the

international community. Individuals have duties to enhance collective security, morality and common interests. The framers of the Charter insist individuals have a duty to regard others with mutual respect and tolerance. Individuals are to work for harmonious development and are to use their talents and abilities at the service of the human community. They are to use the exact words of the framers:

To preserve and strengthen positive African cultural values in his relations with other members of the society, in the spirit of tolerance, dialogue and consultation and, in general, to contribute to the promotion of the moral well being of society; To contribute to the best of his abilities, at all times and at all levels, to the promotion and achievement of African unity" (art. 29).

Amechi (60) has argued that some commentators see article 24 as giving preference to economic development over environmental wellbeing. The implications are that the right to a healthy environment can only be invoked if it does not infringe on economic development. Amechi notes further that:

However, the right as provided under the Banjul charter is linked to development. Such linkage has been interpreted by some commentators as giving economic developmental measures in the event of conflict between two and thus, the provision of article 24 of the charter can only be invoked where it will not infringe the requirements of socio-economic development (60).

The imprecision of the term, 'general satisfactory environment,' according to Amechi (64) leaves to supervisory institutions and courts in each state to give a concrete meaning to this human right. Amechi cites directly Dinah Shelton who avers that:

Establishing the content of a right through reference to independent and variable standards is used in human rights, especially with regard to economic entitlements. Rights to an adequate standard of living and to social security are implemented in varying measures by individual states based on general treaty provisions, according to changing economic indicators, needs, and resources. No precise standard exists, nor can such a standard be established in human rights treaties. Instead, the conventions state rights to 'adequate' living conditions for health and well-being and to social security without defining the term further. The 'framework' treaty allows national and local regulations to elaborate on these rights, since norms are easier to define and amend on the local level and are more responsive to the needs of the community. A similar approach should be utilized to give meaning to a right to environment (64).

Amechi further argues that the interpretation of the right is left to supervisory institutions and courts as revealed in the decision of the African Commission in the SEREC communication. He states that this communication came from an issue brought against the Federal Republic of Nigeria which was accused it of violating article 24. It became an opportunity for the African Commission to state the implications of the right. Amechi cites the African Commission thus:

[R]equires the State to take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and secure an ecologically sustainable development and use of natural resources.... Government compliance with the spirit of Article 24... must also include ordering or at least permitting independent scientific monitoring of threatened environments, requiring and publicising environmental and social impact

studies prior to any major industrial development, undertaking appropriate monitoring and providing information to those communities exposed to hazardous material and activities, and providing meaningful opportunities for individuals to be heard and to participate in the development decisions affecting their communities (65).

By this is the full meaning of the right closed or defined? Amechi (65) is of the opinion that the decision of the African Commission gave clarity to the right, but it "did not entirely exhaust the question of the substantive content of the right as the African Commission failed to pronounce itself on the core content and minimum obligation of Article 24 of the Charter ."

The Charter privileges national constitutions interpretation of this right. This is a fundamental weakness of this article. States can interpret it as they will thereby limiting the import and impact of the right on totally ending all pollutions and other wastes that degrade the environment. It is the view of this paper that development is privileged over naturalistic environmental wellbeing which does not augur well for total environmental flourishing.

The Imperative of the Right to Socio-economic Development

The African Charter speaks of a right to socio-economic development. Article 22 the Charter propounds that: "All peoples shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind." As stated already, the general satisfactory environment that article 24 speaks of being aimed at development. Here again development is not defined. But it could be inferred that all the

human rights and freedoms enunciated in the Charter are all aspects of development. When peoples' lives and existence are guaranteed, they make use of their wealth and natural resources, they enjoy peace and security, they live by the moral and authentic traditional values of their communities; they are to a certain degree experiencing development.

The United Nations General Assembly Declaration on the Right to Development helps to further understand what is involved in the term development. Development involves ending all forms of discrimination, violations of human rights and the elimination of wars. It involves the right to self-determination, sovereignty of peoples over their natural wealth and resources. The Declaration states that:

All human beings have a responsibility for development, individually and collectively, taking into account the need for full respect for their human rights and fundamental freedoms as well as their duties to the community, which alone can ensure the free and complete fulfilment of the human being, and they should therefore promote and protect an appropriate political, social and economic order for development (art. 2).

The right to development is framed in the paradigm of rights. But it is clear that human wellbeing and improvement and complete fulfilment of the human person is at the heart of development. Complete fulfilment and wellbeing could be variously defined based on cultures and communities. Yet it is important to state that the minimum is what is required in international human rights instruments.

Conclusion

From the African Charter and other human rights instruments, it is clear that there is a right to a healthy environment and a right

to socio-economic development. It is also a fact that in many quarters the right to development is trumped over the right to a healthy environment. Maathai (239) rightly notes that:

Achieving each of the eight MDGs depends heavily on healthy ecosystems; but this fact is often overlooked, and the seventh MDG has not received as much attention as the others. In my view, it is the most important, and all of the other goals should be organized around it. What happens to the ecosystems affects everything else.

Maathai (240-243) relates that mountains' ecosystems that are degraded in Kenya affects lives in Kenya, agriculture that is watered by rain is affected by deforestation, and deforestation exacerbates the struggles of people for survival. On the question of the relationship between environment and development, she writes that: "I am often asked whether a trade-off is required between the environment and development. I always say no. We need and must have both; what is important is a good balance between the two. Africa is still rich in natural resources that can be used sustainably and equitably for the benefits of her peoples."

Ecocentrists have argued that the environment ought to be preserved not simply for the sake of human persons or their development but for the entire ecological systems. A foremost representative is Rolston Holmes III, the father of environmental ethics as an academic discipline. This paper agrees with Holmes that not only the human interest should be taken into consideration in determining ethics, issues of development, and business decisions. To condition the right to a general satisfactory environment to development is problematic. Human development whether in terms of social, cultural, and economic development should be placed within ethical restraints and

limits. There are limits to economic growth. Economic growth that damages the environment even on a minimal level could have serious implications for today and future generations.

In the light of the environmental challenges that are besetting the African continent, perhaps it is time to redefine the African Charter especially the right to a general satisfactory environment in ecocentric paradigm. If this can be done, it will greatly help to build a better future and protect the rights of future generations to a healthy and peaceful environment.

Works Cited

Amechi, Emeka Polycarp. "Enhancing Environmental Protection and Socio-Economic Development in Africa: A Fresh Look at the Right to a General Satisfactory Environment Under the African Charter on Human and Peoples' Rights." *Law, Environment and Development and Journal* 5.1 (2009): 60-72. Web. Available at <http://www.lead-journal.org/content/09058.pdf>

Asthana, D.K., and Meera Asthana. *Environment: Problems and Solutions*. New Delhi: S. Chand and Company Limited, 2010. Print.

Dowrick, F.E. (ed.). *Human Rights: Problems, Perspectives and Texts*. Westmead, UK.: Saxon House, 1979. Print.

Igwe, Stanley C. *How Africa Undeveloped Africa*. Port Harcourt: Professional Printers and Publishers. 2010. Print.

Maathai, Wangari. *The Challenge for Africa*. London: Arrow Books, 2009. Print.

- Organization of African Unity. *African [Banjul] Charter on Human and Peoples' Rights*. University of Minnesota Human Rights Library, 1981. Web. 20 May 2013. <http://www1.umn.edu/humanrts/instree/z1afchar.htm>
- Onunwa, Udobata R. *Tradition, Culture and Underdevelopment of Africa*. Suffolk: Arima Publishing, 2005. Print.
- Srivastava, Smriti. *Environmental Science and Ethics*. New Delhi: S.K. Kataria and Sons, 2010. Print.
- Udu, Eseni Azu. *Humans Rights in Africa*. Lagos: Mbeyi and Associates, 2011. Print.
- Ukpak, N. "Man, Development and the Environment: The Case of Nigeria." *Natural Resource Use, the Environment and Sustainable Development*. Ed. The Nigerian Economic Society. Ibadan: The Nigerian Economic Society, 2001. Print.
- United Nations General Assembly. *Declaration on the Right to Development*. 1986. Web. 20 May 2013. <http://www.un.org/documents/ga/res/41/a41r128.htm>.

Chapter Seven

BETWEEN ENVIRONMENTAL CONSERVATION AND DEVELOPMENT: AN AFRICAN PERSPECTIVE

Chinedu S. Ifeakor, PhD

Philosophy Department

Nnamdi Azikiwe University, Awka, Nigeria

cs.ifeakor@unizik.edu.ng

&

Eze Romanus Chinedu

Philosophy Department

Nnamdi Azikiwe University, Awka, Nigeria

ezechineduromanus@gmail.com

Executive Summary

Choosing between environmental conservation and economic development, the paramount challenge of our time lies in resolving the conflict between prioritizing environmental conservation and the forces driving economic development. African governments and policy makers appear perpetually forced to reconcile the legitimate aspiration of majorities to achieve standards of living taken for granted in the economically developed world (like electricity and running water, good roads and a living wage) with the need to preserve and protect what is left of our irreplaceable flora, fauna, and to protect the vitality of the entire natural ecosystem upon which all our wellbeing depends. Examining this dilemma from an African perspective entails understanding that (i) Africa's underdevelopment is not a result of prioritizing environmental conservation; and that (ii) environmental degradation in Africa is neither a necessary nor an inevitable consequence of making robust developmental strides. The way to resolve these apparent dilemmas emerges by

taking an approach that I label obligatory anthropo-holism. On this view, humans (anthropos) have an obligatory role (given duties, in contrast to given rights) to conserve and tend our environment, in order to sustain the balance of our whole terrestrial ecosystem. Yet this ethic of duty cannot be pursued independently of human capacity building through economic development. African environments will be adequately conserved when human welfare is secured and aspirations are enlightened through the achievement of economic development goals.

Keywords: Conservation, Development, Obligatory Anthropoholism, Ecosystem.

Introduction

The debate that blames the West for African underdevelopment today after over fifty years of freedom for the most of African countries except few, is weak, after all, Singapore became self governed by 3rd June 1959 yet far more developed than many African countries. Africa is fully responsible for their current predicament and should start taking responsibility for their development. Today, Africa is still one of the poorest continents in the world, with many people living below one dollar per day, low child mortality, inadequate education and even in some cases poor drinking water. African perspective to the question of Conservation of the ecosystem and development of their continent has to put these factors into consideration.

In the midst of these realities is the question of how we bridge the gap between environmental conservation and development in Africa? Which one should come before the other? Should we carry the two along? What are the implications of integrating the two? What if we go first for development? These are few of the questions this paper intends to examine. At the end, it may not

completely exhaust the answers, ours is only a contribution to the ongoing debate. Let us put them in perspective thus:

The environmental perspective

The environment actually represents a higher order than development and the *status quo* seriously threatens the earth's eco-system. Developing countries try to protect themselves against costly environmental demands. In contrast, the wealth created by trade will not necessarily result in environmental improvements. Development is deemed to cause greater harm, leading to exports of natural resource allocation to other countries and thereby causing increased environmental degradation.

The development perspective

Developing countries' top priority should be to reduce poverty. Openness to trade (development) and investment may be a key to doing so by increasing ex-ports, even though the link between development and economic growth does not happen automatically. Developed countries protect their industries with subsidies, special trade rules and tariff systems which place exporters at a disadvantage in developing countries. Demands that developing countries comply with the environmental standards of developed countries are unfair, particularly if they are not accompanied by technical or financial assistance. Priorities differ; in Africa, for example, clean water is paramount and, historically, developed countries caused most of the environmental damage in the first place.¹

Sustainable development: The answer to the dilemma?

Principle 11 of the 1972 Stockholm Declaration states that:

[t]he environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor

should they hamper the attainment of better living conditions for all, and appropriate steps should be taken by States and international organizations with view to reaching agreement on meeting the possible national and international economic consequences resulting from the application of environmental measures.

In its 1987 report 'Our Common Future', the Brundtland Commission defined sustain-able development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Since the 1992 UN Conference on Environment and Development in Rio de Janeiro, the principle of sustainable development has influenced a broad number of international instruments.²

The Dilemma

If we pursue conservation and reserve so much land for biodiversity and parks, it will recycle clean air in the form of oxygen and help preserve our environment both for the ecosystem, for our health too and for the future generation. This may, however, also require that many citizens be homeless, some businesses like mining, logging, grazing and other businesses dependent on the forest may close down and poverty will increase. Road networks, electrification and other developmental indices may be reduced at some points so as to conserve the environment. To what extent can Africa cope with this reality as a developing continent is disturbing. The answers to these questions depends on the side of the divide one finds herself.

Environmental conservation and rural development contemporary efforts to protect biodiversity internationally are beset by multiple problems. Growing consumption pressures are contributing to ever faster declines in species and the systems they depend on. Available funds for conservation have declined.

High visibility issues such as global climate change have attracted significant attention in the past decade, and perhaps contributed to lower interest in biodiversity conservation. Accusations regarding a lack of synergy between conservation and other social goals such as poverty alleviation, disease eradication, economic growth, and social equity have been advanced by many different scholars puts it:

‘Global losses in biodiversity and wild places are not the stuff of environmental alarmism; they describe our world today. All these impending losses have a human origin. Economic expansion, population growth, urbanization, and development lead to greater consumption. In turn, growing consumer demand, competition for fresh water, energy, arable land, forest products, and globalized production permits the harvesting of nature at ever more rapid rates’.⁴

Faced with these constant challenges, the response of international conservation organizations has been to try to occupy a higher ground by arguing, among other things, that biodiversity conservation is an ethical necessity, that the operational obstacles the above threats pose to conservation need to be addressed by sharpening the message of conservation and persuading others of the importance of biodiversity, that conservation can be accomplished together with poverty alleviation, that biodiversity conservation is important in utilitarian terms for human well-being in the long run and that an exclusive concern with human development often leads to undesirable impacts on biodiversity conservation. These protestations vary in the evidence, conviction, and passion with which they are made.

The criticism that blunts the moral and ethical focus on biodiversity conservation is that which highlights the misery conservation programs impose on people. If conservation

strategies distress human populations, especially those who are less powerful, politically marginalized, and poor, little that conservationists argue on behalf of biodiversity makes sense.⁵ Conservation, the argument goes, has led to the displacement of tens of millions of people who formerly lived, hunted, and farmed in areas now protected for wildlife, watersheds, reefs, forests, or rare ecosystems. The critiques compare the magnitude of human evictions and suffering to that caused by civil wars, mega-development projects, and high modernist state interventions. Let us look at a case study of conservation in Northern Tanzania.

Case Study

In a paper written by Mara J. Goldman, titled *Strangers in their Own Land: Maasai and Wildlife Conservation in Northern Tanzania*, He described how the people of Maasai became economically marginalized, even though they were allowed to live in their homes yet, they cannot take full economic advantage of their lands because of conservation, they have lost their lands. But it is not just losing land or being evicted from one's home that is at stake, for the Maasai are still (at least for now) legally allowed to reside inside the Ngorongoro Conservation Area.⁶ They have, however, been marginalized from decisions regarding its use and management, all of which impact their livelihoods. This has made Maasai throughout Tanzania strangers in their own land, whenever conservation concerns are involved. Despite dramatic transformations in conservation rhetoric towards community-based approaches, conservation in Maasai areas of Tanzania today continue to infringe on human rights in two specific ways: through the eviction of families and the destruction of property, and through the exclusion of the Maasai as knowledgeable participants in decision-making processes in land that 'belongs' to them, on which their livelihoods depend, and on which they sometimes continue to reside. This second form of exclusion can

also be seen as economic exclusion, since Maasai rarely benefit economically from conservation tourism, while having their own economic activities limited, e.g., farming. In his article, he focused more on this second form of exclusion, related to a relatively newly established conservation area designed on the Conservation Trust Model 7 –Manyara Ranch in Monduli district in northern Tanzania, Mara presents Manyara Ranch as a conservation opportunity lost, where local Maasai who were initially interested in utilizing the area for conservation, have come to disrespect the conservation status of the area, after having lost its ownership and control.

The weaknesses of focusing on conservation alone as we saw in the above case study and many others led to a conceptual shift to accommodate the community and meet their development need thereby integrating conservation with development. This is an attempt to bridge the gap between poverty and conservation in the community. The rationale is simple, if you want to take large portion of land from the rural community, land rich in biodiversity, there should be an alternative provision for the community making use of such lands so as to enable them shift their focus from using the natural resource in the protected areas. These incentives come in the form of education, infrastructural development and other forms of businesses through which the host communities can get daily income. This is what is called Integrated Conservation and development projects.

Integrated Conservation and Development Projects (ICDPs)

Conservation and development projects are the product of a 1980 conceptual shift that involved increased recognition of the links between biodiversity conservation and poverty reduction, and attempts to integrate the two in practice. Before this time, conservation of biodiversity and development were addressed as separate entities, with a history of primarily 'top down'

approaches that excluded local communities. With the shift, conservation was seen as less likely to succeed without addressing local community members' rights and needs, and environmental degradation was seen as an impediment to development goals.⁷ Several factors influenced the conceptual shift including: rising criticism of top-down projects from practitioners and local communities, past project failures, influence of the 1987 Brundtland Report, evidence of geographical overlap between areas of high biodiversity and areas of high rural poverty, and increasing recognition of the dependence of rural peoples on natural resources for their livelihoods and day-to-day needs.⁸

The integration of development goals into conservation has been tested under a variety of monikers including International Conservation and Development Projects (ICDPs), community-based conservation, community-based natural resource management, and initiatives associated with parks such as ecotourism and agroforestry. The conceptual shift has occurred to such a degree that it can be challenging for conservation projects to acquire funding without some degree of attention to achieving positive socioeconomic change.

The logic driving these projects has been as follows: provide communities living in biodiversity-rich areas with alternative livelihoods that foster improved development, and the combination of education and increased income will result in a decreased need to remove resources (fuelwood, animals, plants) from these areas, thereby benefiting local ecosystems. Integrated conservation and development projects are seen to be 'win-win' – conserving biodiversity and improving the livelihoods of people involved with or impacted by a project. Supporters argue strongly for the integration on both ethical and practical grounds.⁹

Putting the concept into practice has not been without its challenges, and projects that integrate conservation and development have been highly criticized over the past decade. Critics suggest that benefits are not being shared equally and there is a lack of participation of local communities, oversimplified concepts of 'community', 'participation', and empowerment' are being used and there is little evidence of success in achieving either conservation or development goals.¹⁰ The lack of success of conservation and development projects has been attributed in part to development being seen as a means for conservation instead of an end-goal in and of itself. Others argue that addressing poverty is beyond the mandate of conservation¹¹ and that in some instances there may be conflicting priorities between conservationists and local community members. The result of these debates has been calls for a return to so-called 'fortress conservation' where community members are again excluded from conservation activities and/or areas and the development component is disconnected from conservation. The challenge involved in evaluating conservation and development projects has strongly influenced this debate. Few suggestions have been given as to how best to manage ICPDs so as to achieve the integration of conservation and development. Let us see some of the solutions put forward by scholars. We will also argue here that the concept of community or ingenious knowledge needs more light. Introducing strange environmental ethical model to a community, one different from their background I argue, may hinder community participation. Thus, there is need for an indept understanding of African environmental perspective for ICDPs to succeed, let us see few solutions to these criticisms.

Tools and Approaches for Facilitating Conservation and Development Outcomes

Spatial planning is a crucial component of government land allocation and ICDP implementation. However, many spatial plans end up on shelves, unconnected to local realities and playing no role in guiding development, especially in regions where governance is weak. Wollenberg proposes five principles to support more interactive planning between land users and government. Their approach sees planning as essentially a process for tackling the institutional issues rather than being a mere source of maps.¹²

1. Link local (indigenous) knowledge, experience, and the aspirations of different groups to formal land-use planning and decision making. The importance and necessity of including community perspectives in natural resource management has encouraged the development of a range of approaches and methodologies. The necessity and difficulty of incorporating local perspectives is greatest in tropical forest-dependent communities where poverty, literacy, language, culture, and access can all pose obstacles to effective local engagement.
2. Develop the adaptive capacities of leaders and institutions through better communication and involvement of local land users and managers. Developing the adaptive capacities of different groups who have to work together is a key need in ICDPs. After several years of action research in Malinau to try to accomplish this, it became evident that the socio-political situation, leadership, and institutions changed so rapidly that efforts to develop collaboration were a moving and unreachable target and relative priorities for conservation and development changed in unpredictable ways.

4. Work at multiple jurisdictional levels. This ensures that the driving forces of landscape change are taken into account; these forces are often actors that are well beyond the district level and who may render local plans meaningless. It means intervening at all levels from the local community to the national government and even influencing some international agencies and companies that are active in the landscape.
5. Build capabilities through explicit activities and procedures. It is usually insufficient to deliver new knowledge and options. The work needs to incorporate the key actors as they will be the ultimate users of any new knowledge or information. This kind of interactive planning requires significant investments of time and goodwill. It is only appropriate in places of high resource value and threat, where the stakes are high. This approach complements rather than replaces, conventional spatial planning. What is added is a broader understanding of landscape scale processes and an exploration of a broader range of options that explicitly address difficult local and higher level governance issues. External facilitation is important, and probably essential, to ensure that power differentials do not distort the process and to help planners and managers to deal with the necessary transactions costs associated with broad participation and knowledge management.

It is noteworthy that the concept of community participation is somewhat complex and the measuring yardsticks used to measure the success of ICDPs needs a revisit. Indigenous knowledge of the ethics and values guiding an area is necessary if success is to be achieved in the integration of conservation and development especially in Africa. Donor agencies and conservation organizations should be at the same page epistemologically with the people and should be guided by

indigenous perspectives to the environment. This is where African environmental ethics comes into focus. African environmental ethics is simply African understanding of their relationship with their environment. Many scholars have suggested different theories; Ogungbemi's ethics of nature relatedness, Tangwa's eco-bio-communitarian, Behren's African relational environmentalism and Ramose's ecology through Ubuntu. I, however, argue that these theories are either not African enough or not African at all informed by African ontology. I here argue for a theory I call Obligatory anthropoholism. This theory, I argue, best underscores African perspective to the environment. This theory also bridges the gap between conservation and development. It argues that humans have an obligatory role to tend, keep and care for their environment, the end being for the balance of the whole of the ecosystem. I call it obligatory anthropoholism. Humans have a special place in African ontology which have been erroneously branded anthropocentric. This theory argues that it is the fact of her obligation that distinguishes her from other beings, but it also posits that obligation to the environment will be done perfectly when the human being is developed, when her capabilities are enhanced. Thus conservation in African perspective cannot go without development.

Obligatory Anthropoholism: African understanding of their Environment

The theory the researcher wishes to pursue as a possible alternative to Behren's African relational environmentalism,¹³ Tangwa's Eco-bio-communitarian,¹⁴ Ogungbemi's ethics of nature relatedness¹⁵ and Ramose's ecology through Ubuntu¹⁶ should be one that will have the following characteristics first, it should show mastery of African ontology. Second it should highlight holism as an important aspect of African ontology which informs our relationship to the environment. Third, it

should have and retain a privileged place for humans in line with African ontology. This pride of place has been the subject of misunderstanding in African environmental ethics as it is often branded anthropocentric. It is worthy of note here that African ontology has that place for man from Tempel, Ogotemeli, Ubuntu, Uwa ontology, Ife and Onye ontology, Igwebuike ontology, Relational moral status, etc. Fourth, there should be a sense in which humans are a privileged part in the holistic ecosystem. This sense brings to fore the non-anthropocentric understanding of African environmental attitude. This portends that even though humans are a privileged part of the ecosystem, it cannot be interpreted as anthropocentric.

This theory underscores both the place of humans (*anthropos*) the holistic interrelated community, that is the communitarian concept of being in Africa whereby all existing things intercompenetartes each other (Holism) and the researcher gave a sense in which humans are singled out of the whole. This sense is the fact of obligation. It is humans who have the capability to care for the whole of ecosystem. The researcher is writing because he wishes to prescribe to humans and not cows, how to relate, care, tend and conserve the ecosystem. This is practical and simple; human's special place is not a right based placement, which is somewhat alien to Africa. It is in the light of obligations that humans are privileged. Right based conception is what brought anthropocentrism, Obligation based ethics will strike a balance in the whole of ecosystem.

Few objections and criticisms can be raised against obligatory anthropoholism in my view; the first is that it is anthropocentric because it makes humans the agent of obligation and sees human from a privileged perspective. This by implication will make humans exploit rather than tend the environment, at the end of the day, we are back to anthropocentrism. Second, there can be

criticisms about its Africanness, where scholars have argued that African environmental perspective is simply anthropocentric. Third, is the question of how this theory can comfortably fit into the issues and challenges in the African soil, fight and defeat them.

In attempting but not exhausting these criticisms, it is worthy of note that mine is only an attempt at evolving an Africa theory of environment that can match and defeat the challenges of the environment in Africa and elsewhere, my theory does not boast of mastery, it does not in any way dismiss or counter the views or theories of other African environmentalists; it is only a humble contribution to the understanding of African environmentalism. As much as possible, it is a personal understanding made out of African ontology, it, therefore, cannot be said to authoritatively assume "the African environmental approach". The implication of the above statement is that it is puncturable, it can be criticized and can be built upon; it is a contribution among other contributions which does not claim to exhaust all there is to African environmental philosophy. This position is really worthy of note for critics of obligatory anthropoholism.

In reply to the first criticism of obligatory anthropoholism being anthropocentric and thereby falling into the pit it has tried to fill up, it is important to understand that whatever position you choose to take anthropocentric, nonanthropocentric and ecocentric, the humans are the one who will still be the agent in all these discourse. Humans are the ones who should care for the ecosystem, they are the ones we are writing to, they are the ones who should be obligated to protect the ecosystem, whether as institution or as parastatals, action based ethics can justify anthropocentric ethics but can also justify obligatory anthropoholism. The simple difference in obligatory anthropoholism is that the purpose and end (telos) of human

obligation in African ontology is interconnectedness, togetherness and this fulfills her humanness. It is in working for the betterment of all both humans and physical nature that the human in Ubuntu finds fulfillment and satisfaction. It is in respectful relationship with the environment that eco-bio-communitarian approach of Tangwa finds satisfaction. It is that relationship defined from the obligatory role that makes African relational environmentalism worthwhile. It is the obligatory role of humans to the environment that makes it necessary to assert as Metz does, that it is relating with humans that somewhat confers moral status. The implication of this theory is germane, the humans have a pride of place in African ontology and this place is the place of obligation to care for not just herself in the sense of using the physical nature for personal gains but rather in holistic sense of being the one who enforces holism. This means in practical terms that human should eat cow, but also means that humans should protect rivers and the atmospheric air for the sake of the circle of ecosystem and since the end is holism, it differs from anthropocentrism. The purpose of anthropocentrism is human benefit, the while the purpose of obligatory anthropoholism is ecocentric or holistic. In the end, all theories if seen from an obligatory action perspective will come back to an agent (humans) and thus nonanthropocentric view can as well be justifiable with this.

On the question of the Africanness of obligatory anthropoholism, a theory in African environmental philosophy is African to the extent to which it imbibes the values extracted from African ontology. It therefore requires mastery of African ontology. I argued elsewhere, however, that even though African ontological discourses of some philosophies are ethnocentric, they are raw materials for philosophy and necessary tools for the evolution of a promising African environmental ethics. This is true in the sense that it is from

African experience, ideologies, worldviews and cosmologies that a promising African philosophy can be formed, since going outside the African experience will not foster or motivate Africans effectively care for their environment. Scholars like Hargrove will suggest that theorists should enrich their theories with the peculiarities of their different cultures so as to motivate and persuade men and women to care for their environment.¹⁸ African ontology holds values such as togetherness, holism and a special place for man high. And it is based on these values when well interpreted that a promising environmental non anthropocentric philosophy can emerge.

Conclusion

There is need for a balance between conservation and development especially in Africa. Integrated conservation and development project was designed to care for the environment as well as develop the community in terms of infrastructure, education, markets and means of livelihood for host communities so as to alleviate poverty. When this first work is not done, the second work of conservation will not make any sense. Among the challenges of ICDPs is inadequate understanding of community participation. Indigenous knowledge should be considered and without which conservation projects will be strange to the host community and participation difficult. Few theories have been put forward as African understanding of their environment for which I described as either being not-African-enough or not being African at all. Africanness of any theory on the environment is determined by its relationship with African ontology. I however argue that obligatory anthropoholism is a plausible alternative. It posits it is humans who have the capability and capacity to take care of the environment. This obligation stems from her natural capabilities. It seeks for a shift of focus from rights to obligation. The end of this obligation is not necessarily for her

immediate needs or for future generation, but also for the balance of the holistic ecosystem.

Human development is, therefore, imperative if this obligation is to be carried out effectively. It also holds that environmental degradation happening today is as a result of underdevelopment of human capabilities for obligation. Without economic strength, Africa cannot adequately conserve their environment. If one is left with the option of choosing between development and conservation, I think Africa will choose FIRST to be developed and THEN conserve her environment, but a synthesis of the both will be the best choice.

Works Cited

- Ruppel, O.C. INTERNATIONAL TRADE, ENVIRONMENT AND SUSTAINABLE DEVELOPMENT; In Environmental law and policy in Cameroon - Towards making Africa the tree of life. (eds) Oliver C. Ruppel, Emmanuel D. Kam Yogo: Nomos Verlagsgesellschaft mbH. (2018) p.771-773 URL: <https://www.jstor.org/stable/j.ctv941sr6.42>
- Ruppel, OC, 2012, The WTO chairs programme and the role of world trade and economic development for regional integration, the reduction of poverty and the promotion of economic, social and cultural rights in Africa, 1 Recht in Africa, 143-156.
3. Sanderson, S.E. and K.H. Redford. 2004. The defence of conservation is not an attack on the poor. *Oryx* 38(2): 146-147
- Ruppel, OC 2009b, Regional economic communities and human rights in east and southern Africa, in: Bösl, A & J Diescho (eds), *Human rights in Africa*, Windhoek, Macmillan Education, 273-314, at

http://www.kas.de/upload/auslandshomepages/namibia/Human_Rights_in_Africa/9_Ruppel.pdf, accessed 10 April 2018 p. 100-102

- Gardner, B.R. 2007. Producing pastoral power: Territory, identity and rule in Tanzanian Maasailand. Ph.D. Thesis. University of California, Berkeley. Berkeley, USA. p.15
- Mara. J. Goldman. Strangers in Their Own Land Maasai and Wildlife Conservation in Northern Tanzania Source: Conservation & Society, Ashoka Trust for Research in Ecology and the Environment and Wolters Kluwer India Pvt. Ltd. Vol. 9, No. 1 (2011), pp. 65-79
URL: <https://www.jstor.org/stable/26393126>
- Adams, W.M. Against extinction: the story of conservation. London: Earthscan. 2004. p. 37
- Nederveen Pieterse, J. 1998. My paradigm or yours? Alternative development, postdevelopment, reflexive development. *Development and Change* 29: 343-373.
- Kaimowitz, D. and D. Sheil. 2007. Conserving what and for whom? Why conservation should help meet basic human needs in the Tropics. *Biotropica* 39(5): 567-574.
- Brown, K. 2002. Innovations for conservation and development. *The Geographic Journal* 168: 6-17.
- Candice Caar Kelman. Governance Lessons from Two Sumatran Integrated Conservation and Development Projects Source: Conservation & Society, Vol. 11, No. 3 (2013), pp. 247-263 Ashoka Trust for Research in Ecology and the Environment and Wolters Kluwer India Pvt. Ltd. URL: <https://www.jstor.org/stable/26393114>
- Wollenberg, E., B. Campbell, E. Dounias, P. Gunarso, M. Moeliono, and D. Sheil. 2008. Interactive land-use planning in Indonesian rain-forest landscapes: reconnecting plans to practice. *Ecology and Society* 14(1): 35. [online] URL: <http://www.ecologyandsociety.org/vol14/iss1/art35/>.

- Kelvin Behrens. "An African Relational Environmentalism and Moral Considerability." (CrossMark. 2006.) P. 66
- Tangwa Godfrey. "Some Reflections in Biomedical and Environmental Ethics" In K. Wiredu et al (eds) *A Companion to African Philosophy*. (Malden; Blackwell. 2004.) P. 388
- Ogungbemi, Segun. 'An African Perspective on the Environmental Crisis'. In Pojman.L (ed) *Environmental Ethics; Readings in Theory and Application* (2nd edition) (Belmont C.A Wadsworth.1997) P. 330-332
- Mogobe B. Ramose. *African Philosophy through Ubuntu*. (Harare: Mont Books, 2002) P. 40
- Innocent I. Asouzu. *Ibuanjidanda: New complementary ontology: Beyond world-immanentism, Ethnocentric Reduction and imposition*. (Germany: Lit Verlag. Berhir. Transaction publishers, Rutgers University Press, 2007) p. 117
- Hargrove, E.C. *Foundation of Environmental Ethics*. (New Jersey: Prentice- Hale. Inc 1989) p. 15.

Chapter Eight

THE MORAL IMPLICATIONS OF CLIMATE CHANGE

Peace Iziegbe Osaghae

Department of Philosophy

Veritas University, Abuja

dsirepeace@yahoo.com

Executive Summary

Any action on climate change confronts serious global ethical issues of duty, equity and responsibility among individuals, generations and the rest of nature. Climate change is an alteration in the total weather condition of a location averaged over some long period of time. It has become one of the major issues keenly discussed in contemporary environmental ethics. On the other hand, Moral refers to actions that fall within the purview of behaviours that can be analyzed by use of principles of right or wrong. In other words, a moral act is an act that complies with set standards or principles of good or right behaviour. However, it is highly controversial among scholars whether climate change can be taken to be a moral issue or not. The question of what constitutes the basis of morality when considering climate change is still very problematic. Even among those who consider it a moral issue, there are overlapping concerns on how the moral evaluation should be considered. To this effect, this paper attempts a clarification of why climate change is a moral issue; it brings to the fore, the various perspectives and controversies of the moral dimension of the debate on climate change. Adopting an analytic, hermeneutic and evaluative method, this paper attributes a significant part of the controversies to conceptual misinterpretation. It thus elucidates, through arguments and

conceptual clarification why it becomes a moral duty for man to preserve his natural environment. It concludes that as moral agents, the ecological protection and preservation of our world is our primary responsibility because the earth is ours to plough and not to plunder.

Keywords: Climate, Climate Change, Greenhouse theory, Global Warming, Morality.

Introduction

Ethics as one of the core areas of philosophy is concerned with the quest for fundamental principles that investigates the morality of human conduct. Over the years, it has begun to raise specific moral questions regarding most practical aspects of human endeavors which earn it a branch called *applied ethics*. We can now talk of Management Ethics, Biomedical Ethics, Environmental Ethics, and so on. With attention shifting from man-centered perspectives of morality, the ethicists have begun to look at the effect of man's activities and his responsibilities towards his natural environment. Ecological ethics for instance highlights the manner in which human negligence leads to his dehumanization and destruction through ecological disaster occasioned by industrial pollution and the consequences of the use of nuclear and biological weapons. For the past two decades, the question of environment and its safety has taken a very drastic importance in ethical discussions.¹ Central to this is the issue of climate change. Questions like: "Do the activities of man affect the climate? What or who is responsible for global warming? Do we have responsibilities towards our natural environment? If at all, what sort of responsibilities do we have? How do we minimize, to a great extent, the effect of man's activities on nature? Does man have moral justification for not caring for his environment?" and so on, pre-occupies the mind of an average scholar and world's leader.

Although the issue of climate change is dated back to antiquity (precisely 18,000 years ago), the December 1997 agreement of the highly industrialize countries (in Kyoto, Japan) on the fair distribution of green gas emissions makes it to gain prominent attention from the world's leaders, Non-Governmental Organizations (NGOs) and scholars. This agreement is called "Kyoto Protocol". This was triggered by 2006 documentary film of Al-Gore entitled "*An Inconvenient Truth*" when the issue of its morality was raised. In the film, Gore exposes the causes and the danger of global warming and maintains that taking action on the global warming is now an important moral issue. The duty he perceives according to Bob Carter is not in the sense of caring for the victim of climate change but in the sense of humans having a duty to prevent what he perceives has dangerous and man-induced climate change.² It becomes imperative to inform people that it is better to prevent the dangers of environmental degradation that can result to serious climate issues because it will cost more to deal with remediation. So, people should take responsibility, yield to the warnings and prevent the dangers from occurring instead of waiting for the situation to degenerate and be remediated.

It is an established and indisputable fact that the earth absorbs about 700 billion metric tons of carbon dioxide (CO₂) annually, about 12 billion of which is due to man's activities such as, burning of fossil fuels.³ However, some scholars have a divergent view on whether or not the emission of fossil fuels is what actually causes greenhouse effect (Ozone layer depletion which in turn leads to UV rays). This is one of the major reasons why some scholars disagree with Al-Gore and the proponents of the morality of climate change. Also, scholars are of different opinions as to whether or not we can trust the science behind the belief that the planet will get a lot hotter in the future. The former view advanced by the set of scholars who refuse to treat the issue

of climate change as a moral one but rather as a 'practical one' is tagged *economic/practical reason*. While the later view is tagged as *scientific reason*. Having understood the basic facts surrounding the discuss on the morality of climate change, it is expedient to first examine the arguments of *the greens* who claim that climate change is essentially caused by the anthropogenic emission and they spend enormously to forestall the predicted hotter situation in the future, and later examine the arguments of the *anti-green* counterparts.⁴ It is against this back drop that this paper will clarify why climate change is a moral issue.

However, in order to get the grasp of this discuss, before delving into the whole argument, it is pertinent to first do a definitive, conceptual analysis of some of the salient terms that are germane to this paper.

A Conceptual Clarification

1. **Climate:** it has been defined in various ways; however, these varied definitions have a very closely related meaning. Usually, it refers to the average (or typical) weather condition observed over a long period of time for a given area. It encompasses the statistics of temperature, humidity, atmosphere, wind, rainfall and other metrological elemental measurement in a given region over a long period of time. It is often construed as weather.⁵ In other words, climate is referred to as the total weather condition in some location averaged over some long period of time.
2. **Climate change** is a variation in the weather condition from year to year, decade to decade, country to country, or any larger time scale. Most of the argument concerning the morality of climate change stem from the uncertainty and the initial controversy about what causes climate

variation (including global warming and cooling). The biggest uncertainty in predicting future climate change is in knowing which part is natural and what part is man-made. According to weather street question:

Since climate change, at least to some extent occurs naturally, we do not know how much of the approximate depth of the warming of the global-average temperature in the last century is due to mankind pumping greenhouse gases into the atmosphere verses the earth's supply coming out of the little Ice Age.⁶

Another closely related concept to climate change (especially global warming) is what is called greenhouse theory.

- 3. Greenhouse theory** is a theory that blames global warming on human emission of carbon dioxide from the burning of natural gas and oil (gas flaring). The greenhouse believing scientists claim that it is this emission of greenhouse gases that causes the depletion of Ozone layer which results to the release of Ultra-violet rays that in turn causes the apparent global warming recorded by the scientists over the last hundred years, or so. This phenomenon is known as *greenhouse effect*.
- 4. What then is Global Warming?** Global Warming is a rise in the average global temperature. This warming is often erroneously used (even by some of the environmentalists and the greens) interchangeably with climate change as if they are exactly the same. While global warming is one of the indicators (effects) of climate change, climate change on the other hand is all encompassing; it encompasses

global cooling and warming, rainfall, wind, et cetera (as earlier pointed out in the analysis of climate)⁷. Thus, it would be too constricted to continually consider global warming alone when the issue of climate change is being discussed.

- 5. Morality** is concerned with the rightness and wrongness of human action. It is mainly concerned with principles of human conduct. It assesses the quality of human behavior to ascertain whether particular acts are right or wrong, good or bad etc. Its aim in the human society is to ensure law and order, rationality, objectivity, peace, harmony and so on⁸. Man is seen as a moral agent because of his rational nature. To be moral is to be rational; both rationality and morality are involved in making a distinction between good and bad. It becomes imperative for human beings capable of rationalizing to have an intrinsic moral principle to habitually do the right things and always avoid wrong acts; this is however seen as instinctive⁹. Human person having being endowed with sound faculty of reasoning is then morally responsible for the consequences of his actions and inactions. Ethics, in its normative sense (especially applied ethics) seeks to evaluate and answer practical questions about human conduct regarding specific moral issues using certain standard. Moral theory therefore, concerns general moral questions like what human beings “ought to do” or ‘how human persons ought to behave’. It defines one’s duty as a moral agent and prescribes how man should carry it out. Thus, any step taken with respect to the consequences of our conduct either practically or theoretically (even in principle) implies a recognition of and having a sense of morality.

On the Controversies

The controversies and contentions on why climate change is a moral issue are in two folds; the arguments of the greens verses the greenhouse skeptics is on one side, and the arguments of the greens verses the pragmatists- who seek a 'practical' solution to the problem of climate change- is on the other side of the divide. This paper refers to these two opponents as the "green" and the "anti-green". It shall examine both positions; first, the arguments of the greens as a form of thesis then the arguments of the anti-greens as a form of anti-thesis.

The "greens" - as earlier mentioned, are the set of scholars (mostly scientists) who believe that the change in the climate is human induced (anthropogenic); as such, if preventive actions are not taken urgently, then in the future the earth will get very hot to the extent that no living thing will be able to survive in it. Again, they consider it as the moral duty of the highly industrialized nations concerned to prevent the dangerous effects of climate change from occurring in the future, in order for the dangers not to affect the entire world (especially the less industrialized nations). The reasons offered in support of their claims are numerous but can however be summarize into two major premises: first, that the increase/rise in the emission of Carbon dioxide, natural gas, or methane and chlorofluorocarbons (CFCs) which are all potent greenhouse gases in the air since the industrial revolution (particularly the beginning of the 20th century) is what has been found to be responsible for the gradual rise in recorded global temperature and the second (which of course relates to the first), is based on paleoclimatology, which is the study of ancient climates. They did this by using computer climate models (the mathematical models of the past, present and future climate). It is from this they infer that the future climatic condition will become dangerous to living organisms¹⁰. To this effect, the

environmentalists and the world's leaders make attempt to reverse global warming and forestall the predicted climate condition by organizing series of conferences, constituting numerous Panels and establishing several NGOs. We hear of 1997 Kyoto protocol, United Nations Framework Convention on Climate Change (UNFCCC)¹¹, the Intergovernmental Panel on climate change (IPCC) that was established by World Metrological Organization (WMO) and United National Environmental Programme (UNEP) in 1988 was also saddled with more responsibilities. In fact a conference tagged "sixth International Conference on Climate Change (ICCC), organized by Heartland Institute; Washington, held between June 30th and July 1st 2011 and of course the several plenary sessions of the Paris agreement.

All of these efforts by the highly industrialized and advanced countries seem reasonable as they may have perhaps been influenced by their sense of moral responsibilities towards the less industrialize and developed countries. As a matter of fact, it is not morally permissible for the advanced countries of the world to continuously make the third world countries bear the effects of their highly industrialized activities. As Ryan rightly puts it:

... from the Kantian perspective, this means that the right of the poor countries to cleaner earth should not be sacrificed for the good of the industrialized world.¹²

In the long run, the tremendous environmental degradation by the activities of these advanced industrialized countries far outweighs the economic benefits that industrialization brings.

Even from a utilitarian perspective, one would opine that it is morally repulsive to indulge in actions that will benefit few

industrialized countries while the majority (comprising of less industrialize countries) is suffering. Some Utilitarian's may want to view it in terms of the end- the earning. Research has however shown that majority of the citizens of some of these industrialized countries (India and China specifically) are living in abject penury despite the earnings of their countries. Meanwhile, there is no amount of wealth accumulation that can compensate for the dangerous effects of climate change because it will cost more to deal with remediation.

Nevertheless, this position has being vehemently criticized by their opponents, the anti-greens. The greenhouse skeptics for instance reject the notion of man-induced global warming and doubt the belief that the earth will get hotter in the future. On this basis, they reject the whole idea of prevention (as a moral step), claiming that it is a way of introducing socialism from the back door by the socialist conspirators. They argue that there is no empirical fact to this effect. Bob Carter Succinctly puts:

It is a remarkable fact that despite the world's expenditure of perhaps \$50 billion US dollars since 1990, and the efforts of tens of thousands of scientists worldwide, no human climate signal has yet been detected that is distinct from natural variation. Accordingly, the IPCC alarmist case regarding dangerous human climate rests not on empirical data, but on invalidated computer models, failed greenhouse theory and anecdotal accounts of climate changes that may well be of wholly or largely natural origin.¹³

The above extract summarizes their argument on the rejection of both human induced "climate change" and the prediction of the hotter earth surface in the future. They also base their rejection of the prediction of climate condition on the history of climate and concludes that 20th Century was not (as the greens claim)

unusually warm. According to them, “there had been at least one other period in the past millennium when, worldwide temperatures were as much as 2⁰ C to 3⁰ C warmer than 1990s”¹⁴.

The greenhouse skeptics also raised a very big objection to the greenhouse theory. They claimed that research has debunked greenhouse theory, stating that the emission of greenhouse gases is just an insignificant part of one of the four major factors responsible for cycles of the climate change. According to them, global warming (and cooling) cycles is controlled primarily by:

1. Cyclical Variations of the sun’s energy output
2. Eccentricities in Earth’s Orbit
3. The influence of plate tectonics on the distribution of continent and oceans
4. The so-called “greenhouse effect”, caused by atmospheric gas such as water vapour, carbon dioxide, Methane and nitrous oxides¹⁵. They thereby remark that of all the gases that cause greenhouse effect, water vapour is the most potent such that any little rise in water temperature tends to affect the climate. While agreeing that greenhouse effect is actually a bit player, man did not cause the greenhouse effect for the activities of man (emission of CO₂) in greenhouse effect is too insignificant that we cannot talk of greenhouse effect in relation to man. This agreement was reached in a meeting at the University of Leicester (UK) where the greenhouse theory was ‘nailed’ and a new theory explaining the global warming was to be published.¹⁶

The last of the major objections raised by the Skeptics was on a book and a film titled “An Inconvenient Truth” by Al Gore. They argued that Al Gore did it not only deliberately to create an effect but he also misled the entire world populace. Some of the flaws

they identified with Al Gore's book & film fall under these sub-headings.

- Misleading links between weather events and climate change
- Misrepresentation of data (especially in graph)
- Exaggeration about the sea level
- False claim about scientific views on global warming
- Misleading claims about the responsibilities of the United States
- Conceptual errors,¹⁷ etcetera.

Some of the critics maintain that if at all the question of the morality of climate change will be raised, it is not in the sense Al-Gore and other greens conceive it. To them, the morality sensed in the issue of climate change is in two ways; First we may talk of man having a duty to rescue the victims of natural disasters such as the Tsunami, and not to prevent the 'natural phenomenon' for nature herself is morally neutral and any attempt to stop its occurrence will just amount to a waste of time and money. The second sense in which we can talk of its morality is in accusing; Al-Gore, the NGOs, the individual Scientists, Managers of research Centers, Government agencies, the environmentalist and several other "climate change alarmists" for (1) knowing the truth and concealing it (2) deliberately raising alarm to create panic and fear (3) for wasting money on false research (by scientist), salaries of the managers of research centers, sales made from the news on this false claim by the press, etc.¹⁸.

Meanwhile, there seem to be some sense in what they are saying. One may wish to reject the inconclusive and invalidated inference based on the computer climate models and Paleoclimatology (that the earth will be hotter in the future) for its

arbitrariness. It may also be worth rejecting if truly Al-Gore's documentary is misleading and full of errors. More so, they made reference to scientific facts to prove that man's emission of fossil fuels only plays a little role in greenhouse effect; and that water vapour (i.e. nature) is the most potent cause.

Nonetheless, the whole of their argument is highly misplaced. It is based on the erroneous conception of the two major terms that are germane to this discuss "climate change" and "morality". This has led them to several other errors which shall be discussed under these two concepts.

On the Notion of Climate Change

The major issue with the arguments of the greenhouse skeptics (anti-green) is their sheer inability to distinguish between Climate Change and Global Warming. If only they knew this, they wouldn't have committed the *fallacy of straw man* by attacking the greens notion of man-induced global warming alone and thinking that they have succeeded. This has also led them to commit the *fallacy of division* for taken *part* for a *whole*. For instance, it has been confirmed that acid rain (which is also one of the changes in the climate and which has highly destructive result) is primarily caused by some invisible gases that usually come from automobiles or coal-burning power plants.¹⁹ Thus, it is better for man to take responsibility, yield to the warnings and prevent the dangers of climate change from occurring. Cases of this abound; this perhaps leads to their narrow view of 'morality'.

On the Notion of Morality

Following the arguments of the skeptics, one would observe that they only consider morality in terms of cause and not of effect. What this means is that they think one is morally responsible only for what he has directly caused and not the effect of his

actions (or inactions). For them, the conservation of the natural environment that has inherent value is not an obligation. Thus, having a sense of moral duty towards the environment should not be considered. Since they do not see the need to conserve the environment, they mistreat it believing that their activities are too minute to damage it and then blame whatever damage that may be incurred on nature. In other words the environment is ours to plunder and not to plough. Relating to the subject of this discuss, the argument of the skeptics may be summarized in the following *Modus Tolens*:

Man has the moral duty to
prevent Climate Change, if he
is the cause,
Since man is not the cause of
Climate Change,
Therefore, man does not have
the moral duty to prevent it.

But then, issues about morality should not be conceived in this sense alone, because morality deals with how men ought to behave and why, especially when viewed from the deontological perspective which sees the performance of duties as imperative. Assuming that science has not validated the man-induced global warming argument, it is evident enough to know that deforestation does not only lead to erosion but aggravates the effect of whirlwind. Trees are known to cushion the effects of winds but now the reverse is the case as natural disasters like hurricane has become rampant due to climate change. Even if it is purely a natural occurrence, the cry now is the alarming rate at which these disasters occur frequently with higher intensity at each occurrence despite the fact that nature has a way of balancing itself. Human activities such as dredging of rivers, channelling water on the beach to sand fill and construct houses, gas flaring and so on have been known to have negative effects

on living organisms. The natural environment can be appreciated because of its aesthetic values and ploughed rather than to be plundered. The environment when conserved has more benefits for humanity than when it is pushed.

On the Issue of Global Warming

The Skeptics identified 'water vapour' in the atmospheric state as the most potent gas causing the greenhouse effect. They argued that the release of water vapour in the atmosphere is a resultant effect of a rise in the water temperature which is a natural phenomenon and not man induced. However, they refuse to realize that man's activities such as combustion, heat generated from factories, transport (land or Freight) gas emission, agriculture and glass house horticulture, emits the most carbon dioxide. Including livestock and crop farming that are major sources of methane and nitrous oxide; all these activities of man emits greenhouse gas that also contribute to a rise in the water temperature leading to the greenhouse effect. Although they agreed that man's emission of fossil fuels constitute a small amount contributing to the greenhouse effect, but then, however insignificant it may be, it is better to take responsibility and mitigate it so that in the future the earth can still be habitable bearing in mind that one has a right to a cleaner earth.

It is pertinent to reiterate here that the greenhouse skeptics (anti-green) agree that there is global warming but not as caused essentially by man; thus, they do not subscribe to climate change as being a moral issue but rather as a practical one. Also, they are of the view that the arguments raised by the greens are exaggerated to create unnecessary panic and that is why the world is making bad decisions. For instance, they claimed that the initial effort of Kyoto protocol style to tackle global warming was a bad idea because its aim to get the industrialized countries

signed up for greenhouse gas emissions had failed. It failed in the sense that most of the countries concerned were not cooperating initially. Countries like India and China did not even comply while the US claimed that it will affect her economy negatively and then suggested that other industrialized countries should also sign the treaty.

However, they agreed that global warming is real and likely to be a significant problem in the future; but they believed that the best way to tackle it was not the Tokyo protocol style. In their view, investing in green energy research will be more efficacious than investing in green technology. This is because green energy technology not only amount to waste of time and money but also limits development. Rob Lyons posited that:

As climate negotiators in Mexico waste another two weeks-and an awful lot of money on flights and hotel bills-banging their collective heads against a brick wall, a policy proposal that put faith in humanity's ability to innovate and to solve problems seems a far better option than tracing to grand out a miserable deal that limits development.²⁰

The above quote summarizes what this group means by 'a practical not a moral problem'.

Rob, making reference to Bjorn Lomborg's film on climate change titled 'Cool it', reported that Lomborg (being an advocate of this view) claimed that, with relatively small sum (about \$250 billion- just about 0.4% of the world's economic output per year- to be spent over many years in research, adaptation and third World development), would go a long way to solving not just the climate change problem but opening up a whole new energy sources for humanity and preparing countries for whatever kind of climate change (hot, cold, wet or dry) they may face in the

future. Furthermore, it is reasonable to doubt the efficacy of Kyoto Protocol Style since the (highly industrialized) countries mostly concerned are not yielding to the 'call'; besides, it is expensive and limits development. Also, there is no reservation in supporting their aim which according to them, is to make low-carbon technologies- some of which exist, some of "which are waiting to be discovered" cost competitive with the energy sources that are already being used now. For example, when solar, wind, wave, geothermal, nuclear and so on are as cheap and reliable as oil, gas and coal, it will be no-brainer to switch to these technologies. He however remarks that those climate friendly technologies are expensive and not very reliable at the moment. This, according to Rob Lyons, is the very gap that Lomborg hopes to be "closed by further research and development".²¹

Apparently, the argument of the skeptics is lucid, but then they misconstrue the term "morality" when deeply observed. As earlier pointed out in the 'conceptual clarification,' having perceived that one ought to carry out a particular duty, the next thing is to take a step (practical, theoretical, or effective) towards carrying out that duty. The initiative to proffer a solution to mitigate the issues of climate change depicts a sense of responsibility. The fact that they considered it a duty to prevent the effects of climate change with particular considerations to develop the third World Countries that are affected by their industrial activities, shows that climate change is a moral issue and the their argument thus far buttresses it.

Conclusion

This piece has critically examined the debates on climate change and it maintains that climate change is a moral issue due to the fact that human activities contribute a great deal to climate degeneration, thus man has a moral responsibility to preserve

the environment especially when viewed through the lens of Kant's categorical imperative in particular and deontological ethical theory in general. It suggests that the reasons giving by the skeptics for not considering it as such can be attributed to conceptual error. No wonder G.E. Moore demands for conceptual analysis in our ethical discourse, observing that a great deal of the vast disagreement prevalent in ethics is due to our failure in analysis.²² In submission, mitigating the effects of climate change requires an eclectic approach that cannot be solved from just one angle; hence it is important to note that it is better for man to take responsibility, yield to the warnings and prevent the dangers of climate change from occurring because it is more beneficial to conserve the environment than to mistreat it. The environment when taken care of will care for us in return but if we push it then it will kill.

Endnotes

Echekwube A.O. (1999). *Contemporary Ethics: History, Theories & Issues*. Lagos: Spero Books Limited. p. 272.

Peter and Bob Carter, "Is Climate change a 'moral' Issue?" <http://www.petesplace-peter.blogspot.com/2007/06/is-climate-change-moral-issue.html>. (Accessed on 27th May, 2018).

Mabolo R.B. (2008). *Applied Ethics: Moral Responsibilities for the Contemporary World*. Dawao: Ms Lopez Printing & Publishing. p.3.

Although the few Scientists who go against the arguments of the *greens* are pejoratively labeled "greenhouse deniers" or "greenhouse skeptics", I have chosen to call them anti-green for my research shows that there exist a (small) group of them who actually believe in anthropogenic greenhouse effect but disagree with the *greens* on the basis of the solution offered. See Rob Lyons "Climate Change: a

practical problem, not a moral one" in *Spiked*, www.Spiked-online.com/index.php/site/article/9960.

"What is Climate?" [http://www.weatherquestions.com/what-is-climate.htm&"climate"](http://www.weatherquestions.com/what-is-climate.htm&climate), see also, "Climate" <http://en.wikipedia.org/wiki/climate>. (Accessed on 31st May, 2018).

Ibid.

Ibid.

Ome E. M. (2009). Ethics and Morality: *An Introductory Discourse in Ethics and Morality: Basic Concepts, Some Contentious Issues and Responses*. Enugu: Folmech Publishers. pp. 1-11.

Anyam D.T. (2011). *Issues in Moral Philosophy*. Nigeria: Obeta Continental Press.

Dassai S. Et al. (2004). "Defining and Experiencing Dangerous Climate Change" in *Climate Change*. Netherland: Kluwer Academic Publishers. 64: pp.11-25

Mabolo R.B. Op. Cit. p.5.

Peter and Bob Carter. Op. Cit.

"Research debunked greenhouse theory" <http://fathersforlife.org/articls/gunter/greenhouse.debnked.htm>. It was also extensively discussed in "Global warming", <http://geocraft.com/wvfossils/global-warming>. (Accessed on 27th May 2018).

Ibid.

"Greenhouse Theory Smashed by Biggest Stone" (March 14, 2006), <http://www.physorg.com/news1170.html> (Accessed on 31st May, 2018)

Robert J. (2006). "Falsehood in Gore's An Inconvenient Truth" <http://www.johnstoneSarShive.net/enveiviroennment/gore.html>. Others sources where Al-Gore's Claims was refuted include: Marlo lewis Jnr *A Skeptic's Guide to An Inconvenient Truth* at the Competitive Enterprise Institute; I. Muray. *Gorey Truths: 25 Inconvenient Truth for Al-gore*,

Completive Enterprise Institute. "Global warming"
<http://geocraft.com/Wv/fossils/global-warming.html>;
Tom Morinty "Criticisms of al-Gore's "An Inconvenient
Truth", <http://climatesanity.wordpress.com/criticisms-or-al-gores-an-inconvenient-truth/01/06/2001>. (Retrieved on
1st of June, 2018).

Peter and Bob Carter, Op. Cit.

Ibid.

I am aware of the initial controversy as to whether or not acid
rain is caused by man but the recent research shows that it
is primarily caused by man. For detail analysis, see "The
Environment, A Global Challenge: Acid rain"
<http://library.thinkquest.org/26026/enveiromentalproblem-acidrian.html> (Accessed on 2nd of June, 2018).

Lyons R. (2011). "Climate Change: a Practical Problem, not a
moral one" in *Spiked*, www.Spiked-online.com/index.php/site/article/9960. (Accessed on
27th May, 2018).

Ibid

Moore G.E. (1966). *Principia Ethics*. Cambridge: Cambridge
University Press. p.26

Chapter Nine

THE CONCEPT OF TABOO IN IGBO SPIRITUALITY: A PHILOSOPHICAL EXAMINATION

Agama Christian Sunday, PhD

Directorate of General Studies

Federal University of Technology, Owerri

christianagama19@gmail.com, christian.agama@futo.edu.ng

&

Onyeakazi Jude Chukwuma, PhD

Directorate of General Studies

Federal University of Technology, Owerri

jude.onyeakazi@futo.edu.ng, judefuto@gmail.com

Executive Summary

This study is concerned about the concept of taboo as it affects the spirituality of man in Igbo society. The interest of this research is embedded on the following questions: Has taboo a network of spiritual relationship in man or is it limited with the physical nature of man? Is the offence of taboo here on earth actually identified in the spiritual world? Does it really affect the gods, spirits or the ancestors? What is the relationship between man and spirits? Does man really need to appease the spirits for the sake of peace and success of his life? How does taboo affects man's spirituality? Employing the methods of analysis and hermeneutics, this study attempts to address the above questions and some spiritual issues alike. Focus is on the Igbo ethnic group, one among the African races.

Keywords: Spirituality, Philosophy, Taboo, Ancestors, Igbo Society, *Nso Ala*

Introduction

The question concerning taboo in Igbo worldview is intimately tied with their spirituality. The word “taboo” though, has an inevitable connection between the visible and the invisible, the Divine and the man. But it has a more fundamental network of spiritual relationship in man. Ordinarily, taboo appears to be a mere defilement of land (*ala*) but it is beyond that. There is a metaphysical reality found in the establishment of the concept in Igbo worldview. *Ala* (land) itself is taken to be the Earth spirit (or Earth goddess) that provides life nourishment, protection as well as being the principal custodian of all laws that ensures peace and harmony among the people. *Ala* is kept in high esteem for the sake of human life. It is the spirit behind the fertility of humanity and agriculture.

According to Oguejiofor (2002, 27):

Ala is the owner of all (Aninwe). Its power is much greater than that of mere human being (Anikammadu). It is the abode of the ancestors, and the land of the spirits. It is the most dreaded guardian of morality, and thus taboos are taken as defilement of *Ala* (Nso *ala*).

Ala is the most important deity in Igbo society as it automatically and necessarily becomes the guardian of morality. The influence it has on the people shows that all moral and social authority is derived from it. Being the Earth goddess, it is placed sacred and deeply respected because of its role in the affairs of man and spirits. Therefore, taboo (*nso ala*) is not just held to safeguard the earth and humanity but most importantly the spirit world.

What makes the spirit world so important to man? Why is man so concerned about the world he does not live? The Igbo believe in the spiritual nature of man. It is to their utmost assurance that man still lives in the spirit world after here on earth. The spirit world (*ala mmuo*) is believed to be located in one place or another beneath the earth. This gives the priority of the importance of *ala*,

the earth spirit, the guardian of morality, who is responsible for every kind of fertility and of course the keeper of mankind. Man returns to the spirit world when once he dies to join the ancestors who have died before him. Basden (1966, 274) points out that “the wish of every Igbo man or woman is to rest among the souls of their ancestors, and it is a very real and poignant hope”.

It is based on the above reasons and for the fact that the spirit world is believed to be the final home for man that the Igbo so much maintained that one should not be involved in the offence of taboos. The ancestors, the gods and the earth spirit (*ala mmuo*) will not welcome one who put oneself in such ugly incidents. In fact, the person begins to receive the punishment here on earth before he dies and meets the awaiting punishment in the spirit world.

Thereupon, there are some abnormal signs that are believed to happen among those who got themselves in the offence of taboo. Such signs include: Swollen up of the body, eating of feces, sands, walls or inedible materials and different sorts of abnormal behaviors especially in time of sickness. Sometimes, the person makes an open confession before he dies. If on the circumstance the person dies, the family members must perform some rituals (or a kind of sacrifice) before the deceased will be buried. This will purify the offender (the deceased) and as well appease the ancestors and the earth spirit (*ala mmuo*) without which terrible things like sudden death, famine, epidemic etc will begin to fall upon the family. The ancestors who are believed to be spiritually present all round the family and the community will begin to decline from their protection. This is why the concept of taboo appears to be more spiritually inclined than physical in Igbo society. The ancestors who are accredited with superiority and enriched with spiritual powers are expected to protect the human beings and prosper their undertakings. However, this

study submits that the establishment of taboo has both spiritual and physical impacts on man, and that its main purpose is to ensure public peace, unity and stability of the Igbo society.

The Igbo Conception of Taboo

When properly examined, it becomes clearer that the notion of taboo in Igbo worldview has a replete of metaphysical reality in its establishment. The English word of “taboo” may appear so simple compared to the abundance and complexity of the term in Igbo language. The word “taboo” is named *aru* or *nso ala* in Igbo. For the sake of emphasis, this paper will use *nso ala* and taboo inter changeably. *Nsoala* literally means prohibitions against an item (especially sacred ones like land), person, or type of behavior. The root of this world has two unique meaning that gives the background of what *nso ala* is all about in Igbo society. The word *nso* implies two different things though connotatively related. One expresses negative, and one positive. On the negative sense, it means “avoidance” or “prohibition”, that is, what one must avoid, or what one is prohibited from doing. On the other hand, the same word *nso* means “holy”. The two senses of the word seem to be related because every holy thing such as spirits, priests, shrines etc, is surrounded by a set of prohibitions. Ordinary people may, on the advice of a priest or diviner, adopt and practice certain prohibitions and thus achieve a limited level of holiness. It would appear therefore, that prohibitions create or preserve the status of holiness (*nso*), while the breach of prohibitions (*nso*) results in pollution or unholiness. This means that in all ramifications, *nso* is just “a sacred prohibition” (Nwagbala 2002, 317). *Ala* in its particularity is also like the term *nso*. *Ala* (soil, land or earth) is central to the entire existence of the Igbo. It is a deity and its nature is so central and vital to the Igbo people because it is the land that the ancestors are buried and their souls and bodies also rest finally on it (Nnoli, 2001, 50). This makes *ala* to become both cosmic (as physical) and spiritual (as

divine) associated with every individual or community whose life is considered worthy to extend beyond the physical world. Ala is so much present in the life of Igbo people and that is why any defilement of it is termed taboo. In the course of avoidance, Echeruo (1979, 19) makes the observation thus:

One divinity however, was beyond the capriciousness of the Igbo man that divinity is neither Igwe, nor even Chukwu, but Ala, the goddess of the earth. She was the one deity which no man or woman and no community could afford to offend, much less discard. If ever there was a supreme god among the Igbo it was Ala.

The nature of *ala* is so important that it is believed to be the determinant of fortune or success. It remains everlasting present (Alagboso), and as well keeps things in order. For this reason *ala* is sacred. Any offence against *ala* is a taboo (*nso ala*). It is recognized as the earth deity and the guardian of morality. It is in control of everybody and all kinds of fertility that man can think of. It is in between the visible and invisible. It is the root form of communication between the ancestors and human beings.

By implication, *nso ala* is an offence against land, earth deity and humanity. Any abominable act like sheading of innocent blood, stealing, suicide, violation of oaths etc is a taboo – an offence against land and humanity. Nwagbala (2002, 318) points out that:

A person who breaks any ‘*nso ala*’ is said to have polluted or defiled the land, ‘Omeru alu’ (he committed pollution) or ‘oruru ala’ (he defiled the land) Abominations are serious offences, which are believed to threaten the cosmic and social order. The breach of ‘*nso ala*’ generally incurs for the offender a state of pollution and the threat of supernatural sanctions.

This expresses the degree of what is meant by taboo in Igbo community, that the offender is condemned face not just

supernatural sanction but also from the fellow human being. Apart from the calamity that may befall on the offender, the punishment and stigmatization given to him/her is also a difficult task. For instance, the offender could be excommunicated socially or banished from the community, and if he dies within this period, he will not be given a full funeral rite. Besides, he can never be an ancestor. He will end up an evil wandering spirit who can only be chased away by the rites of *ichu aja* (sacrifice) and not venerated (Arinze 1970, 35).

By and large, taboo is seen as norms that does not need any kind of violation whether voluntarily or involuntarily. Any violation attracts divine punishment. An offence of taboo is an unusual happenings and a threat to the natural order. Taboo puts the ontological equilibrium of Igbo community in jeopardy. It does not only affect the relationship of man to man, it affects also the spiritual beings. It is not just a concerned affair of man alone. "Igbo society is not fragmented into areas for human act and for divine attention. The community has a religious wholeness. With every human social activity divinized, taboos for better life are couched into all Igbo works and behavior" (Adibe 2006, 52). Both are harmoniously chained together in such that none can be reconciled to the detriment of the other. Hence, taboo has an inseparable connection with spirituality.

The Igbo Worldview on Spirituality

Spirituality as an invisible phenomenon is indispensable in Igbo society just as many societies cannot deny the fact of its existence. Of interest here is the philosophy behind spirituality in Igbo communal life. This spirituality is the bedrock that unites the Igbo as a common society. It shapes the object of their beliefs through which the practices of their communality, put together make them unique from other part of the world. They express their spirituality through their numerous rituals. Such practices

showcase how deep they value anything spirituality. It is one out of the major practices of the Igbo that has been long in existence even from the prehistoric time. Anyiwo (2013) argues in addition that:

The spiritual system of Ndi Igbo (the Igbo people) is one of the oldest on Earth. The roots of Igbo spirituality is the same as the roots of every other African Community. Igbo spirituality predates Islam, Christianity, Judaism and every other-ism that one can think of. If there are any similarities between the traditional practices of the Igbo and those of other religions, it is because they were borrowed from our ancestors, and not the other way round.

In Igbo society, therefore, spirituality is a fundamental guide to the behavioral traits of both individuals and groups. It goes further to guide decisions of daily life. Individuals experience spirituality based on one's mental process and intention. Spirituality is also experienced in group in as much as the people involved share the same vision and targets. This, in effect, explains the unifying mindset of the people in accordance with their traditional and cultural practices.

The practice of spirituality in Igbo society remains central to humanity because it acts as a mediator between the living and the death, the visible and the invisible realities. These common practices (the spiritual values, respects, solidarity, rituals etc) sustain and prosper the spiritual growth of members within the community. Growing spiritually involves living a good and decent life that is worth of emulation. Spirituality in Igbo society is not just to make rituals, sacrifices, beckoning on deities and ancestors etc. It requires disciplining oneself such that one will not have a questionable character among the people. Those who lived their life well before they moved to the spirit world are believed to be with the ancestors. The ancestors are strongly

attached with Igbo spirituality. The ancestors are always beckoned especially in time of needs because they are the role models who act as the spiritual guides to the people. The mindsets of the ancestors are known for the common good which is in line with Igbo spirituality. They are entrusted with the responsibility to protect their families left in the world from any danger or disaster. And in order to thrive among the living, the Igbo community will have to live by the dictates of the ancestors through their tradition and loyalty. This is why:

The Igbo people believe that a deity or an ancestral spirit might himself appear in any human or animal form or send a visible agent to communicate and deal with human beings. There is no strict dichotomy of the natural and supernatural worlds. They are just different orders of beings and existence, which are in constant interaction and communication. The main difference is that beings in the visible order are always there for ordinary eyes to see, while the spirits are symbolized by natural appearances, and human beings also represent them in various symbols (Nwagbala 2002, 312 - 313).

Thus, the Igbo do not only care for the human beings but as well the spirits. This is why it is arguably favored that they adhere to the instructions of the spiritual guide either from the deity or ancestors, thereby making them to be spiritually disciplined.

The philosophy behind the spiritual discipline is to maintain harmonious relationship between human beings and spirits (or divines). According to McBrien (1989), spiritual discipline is a process whose purpose is nothing but to comprehend the connection between the divine and the secular. By implication, the process remains that man will have to live a virtuous life in order to achieve perfection. When the body, soul and spirit of man follow the direction of virtue and natural order, the perfection is actualized. This perfection is when there is a

harmonious relationship between the divine and humanity, for Igbo spirituality is also embedded in supernatural reality. Why should there be such relationship? It is because what is good for humans is considered to be good for other realities both the living and the death. It is believed that human being is an integral part of the spiritual world. Man shall one day join the ancestors in the spiritual world.

The Interconnectedness of Taboo and Spirituality

The relationship between taboo and spirituality in Igbo society is more of a direct connectivity between the earth (*elu-uwa* or *ala mmadu*) and the spirit world (*ala mmuo*). In that, there are two categories of beings each residing to its particular world. This particular worldview is not limited within the Igbo society but Africa at large. It is in view of this that Metuh (1992, 51) asserts that:

All beings known to African worldviews belongs to their worlds – the visible world (*Ala mmadu*) and the invisible world (*Ala mmuo*) The invisible world is made up of the heavenly realm, said to be the home of the creator and deities; and the spirit land; the home of ancestors.

Elu-uwa and *ala mmuo* are two different worlds but realities are perceived from both of the worlds. The gods and the ancestors who dwell in *ala mmuo* are also believed to relate with humans who live in *elu-uwa*. Nwala has it that the gods and other created beings interact in their different abodes. The gods abode is *Ala mmuo*. And human abode or the earth is *Ala mmadu* (Nwala 1985, 30). On the realms of interaction there is no sharp line separating the two. This interaction that co-exists between the two worlds establishes the correspondent connection between taboo and spirituality. Taboo influences negatively in the worldly relationship with the other. It is believed that taboo affects also the spiritual beings (the ancestors) as they are acknowledged to participate on daily family life. It is traditionally conceived as a

natural phenomenon that the spirits interacts in different forms with the living creatures. No wonder, Nwala maintains that it is difficult to strictly distinguish the natural from the spiritual since both are in constant communication and also share common relationship as a single entity (Nwala 1985, 31-34). Be that as it may, taboo has both direct and indirect relation with Igbo spirituality. It directly affects the body, the soul and the human spirit especially when the offender is facing the resultant effect of the taboo. While it indirectly affect the spirit world as calamities and misfortunes are believed to come from the angry ancestors or gods. Both the visible and invisible beings share the forces and problems coming from taboo.

Taboo in Igbo spirituality is taken very serious because of fear of deadly sanction that may likely come from the spirit world. Taboo appears to defile the home of spirits – the home of the ancestors. The home of ancestors is regarded as an ideal model on how to live a good life on earth. One who is inflicted with taboo will not access the ancestral home. So, the Igbo worldview of taboo is closely linked to spirituality because it defiles the nature with which man originated and shall as well go back for final rest. Taboo does not add value or respect to the spiritual source of inheritance shared by Igbo community. Thus, in effect, is of great importance to debunk and keep away from taboo completely. Total abstinence from taboo encourages spiritual discipline which in turn brings peace to the spirits and humanity. Avoidance of taboo is the true means in which the traditional Igbo society enforces harmony. It is a means of measuring the ethics of the society such that the values of society will continue to exist from one generation to the other. Through this traditional life of sanctity, harmony and equilibrium are maintained between the visible and invisible world which is the highest achievement in Igbo spirituality. Adibe (2006, 520 rightly points out that:

Every offence against the taboos is a disruption of the harmony in the ontological order of good relationship of God and man, and of man and man. The Igbo custom and tradition is all – together called *Omenani*. Some offences are against God, some against deities and ancestors, while others are against human society. An offence can be immoral, anti-social, and irreligious. All evil acts are *ajo ihe*. Transgressions against the deities are *nso ala*. An abomination against earth deity is *alu*.

Therefore, the worldview of taboo as concerned with spirituality is completely unethical in Igbo cosmology. It destabilizes the Igbo spiritual guide.

The value and respects accorded to spiritual world is so great that people seek for justice from the very world. It is assumed that the ancestors and the gods who forbid taboo, and who witness anything done in secret maintain the law and order within the society. Since taboo is not only condemned on the earth, and while some taboos may be done in secret, the act of tabooing among the Igbo people is highly regulated by the fear of being punished by the spirits. For instance, when in doubt, the accused person is asked to swear to a particular spirit in order to proclaim justice. Arinze indicates that in serious incidents, the defendant apparently chooses a strong spirit to swear to, one who has the reputation of acting promptly without wasting time in getting the offenders (Arinze 2008, 55- 6). Moreover, spirits are not visible and they have greater power to support or harm people. Because of this, people give that value and respect to the spirits in order to be free from punishment. This practice of spirituality forms an ethical guide and particularly for the control of taboo in Igbo society.

Conclusion

This study has presented an extensive analysis and interpretation of the concept of taboo as it concerns the nature of Igbo spirituality. Basic emphasis is the underlying connectivity between taboo and spirituality; how taboo affects the Igbo spiritual system. Taboo causes a tremendous battle between humans and spiritual powers, and how to manage and combat the spiritual forces is only to avoid taboo and live a good and decent life. Life for Igbo man is sacred, an integral whole that is believed to be given and controlled by spiritual beings. Life for the Igbo is conceived and accepted to be indivisible with communal background associated with gods, spirits and ancestors. Based on this reality, Igbo people have an interesting attitude of preserving the human life by avoiding the offence of taboo. It is through the avoidance of taboo that the Igbo people aspire to maintain a healthy balance with spiritual forces in the society.

Upon the above realities, some looming questions therein are: why should man allow himself to be controlled by spiritual forces? Why should man allow the spiritual beings to have an affair with the offence of the earth? Sometimes an offender of a particular taboo is sent out of the community, and the question is: Will that solve the problem along with the ancestors? Why should the control of taboo not limited within the jurisdiction of man like every other offence? Moreover, some avoidable misfortune are considered outside the consequence of taboo but believed to be one's bad luck or the will of gods. What is the logicity behind the fact that the gods and ancestors who guide and protect the living should allow misfortunes to befall upon man for no reason? It is obvious that the major problem associated with Igbo spirituality is that it does not give room for criticism and logical discussions. This single reason makes it appear archaic, harsh and dogmatic in nature. However, it is an aged long tradition that has been working for the Igbo people.

References

- Adibe, G.E. (2006). *Ogwu: Igbo Traditional Power Challenges the Igbo Christian*. Onitsha: GoodMark Prints Production.
- Anyiwo, Onyii. (2013). *On Igbo Spirituality*
<http://igbokwenu.wikispaces.com/igbo+spirituality+101>
- Arinze, F.A. (1970). *Sacrifice in Igbo Religion*. Ibadan: Oxford University Press.
- Arinze, F.A. (2008). *Sacrifice in Igbo Traditional Religion*. Onitsha: St. Stephen's Press.
- Basden, G.T. (1966). *Niger Ibos*. London: Frank Cass.
- Echeruo Michael. (1979). *A Matter of Identity*. Owerri: Ministry of Information.
- McBrien, R. P. (1989). *Spiritual Direction*. Encyclopedia of Catholicism (Gen.Ed) New York: HarperCollins Publisher.
- Metuh, Ikenga. (1992). *Comparative Study of African Traditional Religion*. Onitsha: IMICO Publisher.
- Nnoli, I.M. (2001). *Understanding Africa*. Enugu: CIDJAO.
- Nwagbala, E. A. (2002). *Early Christian Reconciliation and Igbo Tradition: Matthew 6:12 in the Exegesis of the Early Fathers Attempt at Inculturation*. Aachen: Shaker.
- Nwala, T.U. (1985). *Igbo Philosophy*. Lagos: Lantern books.
- Oguejiofor, O.J. (2002). The Universal and the particular in Igbo Conception of Ala. *West African Journal of Philosophical Studies*. Enugu: An AECAWA Publication.

Chapter Ten

AFRICAN ENVIRONMENTAL ETHICS: TOWARDS A NON –ANTHROPOCENTRIC AFRICAN ENVIRONMENTALISM

Chinedu Stephen Ifeakor, PhD

*Department of Philosophy
Nnamdi Azikiwe University Awka*

cs.ifeakor@unizik.edu.ng

&

Andrew Otteh

*Department of Philosophy
Nnamdi Azikiwe University Awka*

andrewotteh@yahoo.com

Executive Summary

Africa today is faced with several environmental issues ranging from gully erosions, desertification, flooding, overpopulation, water pollution and Co2 emissions from cars and engines et cetera. Two factors responsible for these are: the aging earth and the activities of humans. Environmental ethics, therefore, seeks for the extension of moral community to include the eco-system as a whole. African environmental ethics is an enquiry into the thought system and ontology of the Africans on the environment. This paper looks at the theories and conceptions put forward by scholars in their bid to evolving a promising non anthropocentric African environmentalism. Oruka and Jumia's Parent earth ethics, Ogungbemi's ethics of nature relatedness, Tangwa's eco-bio-communitarianism, Mogobe Ramose's Ubuntu ecology, Behren's African relational environmentalism, etc. In the journey so far, using the philosophical method of analyses, one observes that these theories are either not African

at all, judging from African ontological system or not African enough in the sense of not reflecting on important aspect of African ontology. I propose, however, that obligatory anthropocentrism is a more promising African environmental attitude. My view gives a sense in which humans have a pride of place in African ontology (obligation). It also stresses the developmental implications for the African continent.

Keywords: African, Environment, Ethics, Anthropocentric, Eco-Bio-Communitarian

Introduction

Challenges to our environment in the 21st century have been an issue of great concern. Few factors in the writer's view have contributed to these challenges. The first is nature. By this I mean ageing world and its implications. This means that an old man cannot but be old in the bones with shrunked body no matter how much health care and food that is given to him/her. The world is not getting any younger and so we see some of its implications on the environment. The second factor and the most important one too, is the activities of man. Science and technology brought with it industrialization. Even though the human person has tried to explore and improve his or her life on earth, it came with some disadvantages. In environmental ethics, there is this presumption that if the activities of human kind can be directed right, the environment can be saved from further degradation. Thus environmental ethics is an attempt to prescribe to humankind the right way to relate to the environment so as to preserve the environment. While ethics deals with rights and wrongs, good and bad in the realms of human conduct, environment ethics deals with rights and wrongs, good and bad in our relationship with the environment.

The need for reorientation is now as the 21st century is experiencing serious environmental degradation. Let us see some of these challenges; Pollution: Pollution of air, water and soil require millions of years to recoup. Industry and motor vehicles exhaust are the number one pollutants, heavy metals, nitrates and plastics are toxins responsible for pollution while water pollution is caused by oil spill, acid rain, urban runoff, air pollution is caused by various gasses and toxins released by industries and factories and combustion of fossil fuels, soil pollution is majorly caused by industrial waste that deprives the soil from essential nutrients. Climatic changes like global warming is the result of human practices like emission of Greenhouse gasses. Global warming leads to rising temperatures of the oceans and the earth surface, melting of polar ice caps, rise in sea levels and also unnatural patterns of precipitation such as flash floods, excessive snow or desertification. Overpopulation: The population of the planet is reaching unsustainable levels as it faces shortages of resources like water, fuel and food. Population explosion in less developed and developing countries are straining the already scarce resources. Intensive agriculture practiced to produce food damage the environment through use of chemical fertilizers, pesticides and insecticides. Overpopulation is one of the crucial current environmental problems. Natural Resources Depletion: Fossil fuel consumption results in emission of Greenhouse gasses, which is responsible for global warming and climate change. Globally, people are taking efforts to shift to renewable sources of energy like solar, wind, biogas and geothermal energy.

The cost of installing the infrastructure and maintaining these sources has pummeled in the recent years. Waste Disposal: The over consumption of resources and creation of plastics are creating a global crisis of waste disposal. Developed countries

are notorious for producing an excessive amount of waste or garbage and dumping their waste in the oceans and, less developed countries. Nuclear waste disposal has tremendous health hazards associated with it. Plastic, fast food, packaging and cheap electronic waste threaten the wellbeing of humans.

Climate change: Climate change is yet another environmental problem that has surfaced in the last couple of decades. It occurs due to rise in global warming which occurs due to increase in temperature of atmosphere by burning of fossil fuels and release of harmful gasses by industries. Climate change has various harmful effects but not limited to melting polar ice, change in seasons, and occurrence of new diseases. Frequent occurrence of floods and change in overall weather scenario.

Loss of biodiversity: Human activity is leading to the extinction of species and habitats and loss of bio-diversity. Ecosystem, which took millions of years to perfect, are in danger when any species population is decimating. Balance of natural processes like pollination is crucial to the survival of the ecosystem and human activity threatens the same. Another example is the destruction of coral reefs in the various oceans, which support the rich marine life.

Deforestation: Our forests are natural sinks of carbon dioxide and produce fresh oxygen as well as helps in regulating temperature and rainfall. At present forests cover 30% of the land but every year tree cover is lost due to growing population and its growing demand for more food, shelter and clothing. Deforestation simply means cleaning of green cover making such land available for residential, industries and commercial purpose. Ocean Acidification: It is a direct impact of excessive production of CO₂. The ocean acidity has increased by the last 250

years but by 2100, it may shoot up by 150%. This has great impact on shellfish, Plankton as well as humans.

Ozone layer Depletion: The ozone layer is an invisible layer of protection around the planet that protects us from the sun's harmful rays. This depletion is as a result of pollution caused by chlorine and bromide found in chloro-floro Carbon (CFCs). Once these toxic gasses reach the upper atmosphere, they cause a hole in the ozone layer, the biggest of which is above the Antarctic. Ozone layer is valuable because it prevents harmful ultra violet radiation from reaching the earth. This is one of the most important current environmental problems.

Acid Rain: Acid rain occurs due to the presence of certain pollutants in the atmosphere. Acid rain can be caused due to combustion of fossil fuels or erupting volcanoes or rotting vegetation which release Sulfur dioxide and nitrogen into the atmosphere. Acid rain is a known environmental problem that can have serious effect on human health, wildlife and aquatic species.

Genetic Engineering: Genetic modification of food using biotechnology is called genetic engineering. Genetic modification of food results in increased toxins and diseases as genes from an allergic plant can transfer to target plant. Genetically modified crops can cause serious environmental problems as an engineered gene may prove toxic to wildlife.¹ Humans have greatly contributed to these environmental problems as it is the activities going on in factories, industries, urban areas, etc., that cause these problems.

Human technology in general, and biotechnology (agricultural and human) in particular, have narrowed the gap between the

natural and the artificial, between nature and humanity, between “God’s work” and “work of human hands” to the extent that some have proclaimed God and/or nature dead. Human tinkering with nature, which can be said to have begun with the discovery of agriculture about ten millennia ago, and which seems both inescapable and unobjectionable, has evolved, (thanks to modern technology) into wholesome interventions in the process of nature, exemplified by the engineering of novel artificial life forms. Such developments have gradually turned the perennial moral concern with the physical environment and with medical practice into moral disquiet and even moral alarm.

As Frederick Ferre pointedly remarked at the Nairobi World Conference of Philosophy on Philosophy, Humanity and the Environment:

By the time organisms are sufficiently artificial to be patentable, it is clear that the relative weights of nature and culture have reversed themselves. Culture is in the driver’s seat and nature is hanging on for dear life (literally) as we hurtle down unexplored roads with poor visibility, and with uninspected and untried brakes.²

The cogency of this remark made before mammalian cloning became a scientific fact in 1997, is today even more evident than before. Nevertheless, biotechnology also holds a certain justified fascination for human beings, because of its positive potential in such domains as preventive and therapeutic medicine and in agriculture.

In the face of these developments, human ethical sensibilities and responsibilities are urgently called for. As human beings, we carry the whole weight of moral responsibility and obligation for the world on our shoulders. The claim that humankind is the

apex of biological existence as we know it, has sometimes been dismissed as an arrogant spiciest claim and contested by some human militants for the rights of animals and/or plants less disputable, however, is the fact that while human beings have putative moral responsibilities toward inanimate objects, plants and the animals, these later cannot be considered, without absurdity, as having any reciprocal moral obligation toward humans. Human intervention in nature could plausibly be justified by appeal to this asymmetrical responsibility, although this does not imply that every intervention is justifiable. For these reasons, our focus on eco-ethics, environmental ethics, developmental ethics, medical ethics, bioethics – all of which can be gathered into one basket labeled “eco-bioethics” is not only appropriate but also quite timely.³

In African background this search for harmony is important for few reasons; African perspective is important because the world is searching for theories which will help man conserve the environment, Africa being a part of this whole can contribute through their thought towards this project. Second, if the world will come to value their environment, they have to be conscientized and taught to. Eugene Hargrove commented that teachers of environmental philosophy in developing or evolving theories that will enable them teach their students, should be careful not to import from other cultures but to look into the ontology of such people there will be rich cultural or ontological materials which will enhance effective communication of values for the conservation of the environment. Third, Huttington’s clash of civilization teaches the world that every culture or civilization brings something important to the world table Africa being rich in culture and civilization can lend voice to the search for ethical attitude of mankind to the environment.

It has been held by scholars like J, Baird Callicott, J.S. Mbiti, Benezeth Bujo, etc., that African ontology is anthropocentric, however, African scholars as Ogungbemi, Behrens, Chemhuru, Ekwealor have argued and strongly too that African ontology and environmental understanding is non anthropocentric. Time may not allow for detailed analyses of these arguments both for and against anthropocentrism, we simply seek to look at the theories so far put forward by some African environmental ethicists in their effort to evolving a promising non anthropocentric African environmental ethics.

For a theory to be fully African, it has to show mastery of African ontology otherwise it lacks the characteristics of being African. The human being and the interconnectedness of being are two of the salient values in African ontology which are relevant to the environment. These two values have been erroneously interpreted in various ways. For instance, the pride of place of the human being in African ontology has been described as anthropocentric by Kai Horthenske, Ramose in his *Ecology through Ubuntu* posited that humans in African ontology are part of the whole of ecosystem but “a privileged part”, Thad Metz in his relational theory of moral status posited that it is the relationship “with human” that confers moral status to other beings in the ecosystem. I argue in this paper that while Horthenske’s anthropocentric stance on Africa is untenable, Ramose failed to give the sense in which the human being is a privileged part of the ecosystem. Also Thad Metz failed to give us the sense in which it is the relationship with humans in particular that confers moral status. It is human capacity for obligation, for action, for taking responsibility that singles her out in the ecosystem. The privilege humans enjoy stems from the fact that they are saddled with the responsibility of tending, caring for the whole of the ecosystem which they are a part. I call

it obligatory anthropoholism. This paper is divided into four parts; the introduction, African environmental theories so far, obligatory anthropoholism as a viable African environmental ethics and conclusion.

Theories in African Environmental Ethics: Towrads an African Non anthropocentric Environmental Ethics.

A look at some theories put forward by African environmental ethicists in their attempt at evolving a non anthropocentric African environmental ethics is necessary for some reasons. First, examining what have been done so far enables the researcher to stand on the shoulder of scholars to see clearer, valuing the contributions of scholars makes for academic humility since it simply implies that just as the weaknesses of their theories are shown here, so also will the weakness of my own attempt be shown by others. Second, in the works of other theorists, one discovers a *lacuna* that forms the real reason for writing. In the theories we will be looking at, careful scrutiny will show that the place of man is conspicuously missing and where it is shown, as in Ubuntu Ecology and Relational environmentalism, they failed to give the sense in which humans are a privileged part of the whole ecosystem. The failure to give this sense reduces their work somewhat to anthropocentrism. However, we are simply doing an attempt, not claiming mastery, nor saying that ours is all there is and should be in African environmental ethics. Ours is also a contribution to scholarship and an attempt at given perspective to African environmental philosophy.

We will look at Ogungbemi's ethics of nature relatedness, Tangwa's eco-bio-communitariam, Odera Oruka and Jumia's Parental earth ethics. We will also explore the strengths and weaknesses of Ramose's Ecology through Ubuntu and finally

Kelvin Behrens' African Relational environmentalism. Let us start with Ogungbemi's ethics of nature relatedness.

Ethics of Nature -Relatedness

Segun Ogungbemi in his paper "*An African perspective in the environmental crisis*"¹ discusses the nature of the environmental crisis in Africa. In doing this, he came to a number of conclusions concerning the principal causes of the environmental crisis in African and proposes some ethical reflection and practical suggestions on how to mitigate the challenge posed by the environmental crisis

Ogungbemi construes environmental crisis in global content and as one of the greatest global problems of our time. In his thinking, environmental crisis is a conjunction of some natural disaster such as earthquake, volcanic eruption and storms together with man's activity of exploration and utilization of natural resources such as through the ingenuity of science and technology, which has impacted negatively on the environment and human well being. While recognizing the universality of the environmental crisis, Ogungbem notes that in understanding the nature of environmental crisis within the context of sub-Saharan Africa, three points are sacrament. First, ignorance and poverty. Second, science and technology and third, political conflict, including international economic pressures.⁴ He argues that in order to properly understand the nature of the environmental crisis in Africa, we need to understand the ways in which both traditional and modern social structure have led to environmental degradation.

On the factor of ignorance and poverty, Ogungbem explains that the majority of traditional Africans live in rural areas where the people wallow in poverty and lack of basic amenities such as

good water supplies, adequate lavatories and proper energy use. As a consequence, the rivers were polluted with human waste exposing the people to avoidable water borne diseases such as dysentery, typhoid and cholera. The excessive use of fuel wood and constant bush burning which is a predominant practice in traditional Africa, increases air pollution, affects air quality and depletes the forest and other natural habitats. This factor of poverty *cum* ignorance on the part of traditional Africans Ogungbemi argues, does not necessarily exonerate our people from their contribution to environmental hazard.³ This is particularly so given that the relevant patterns of behaviour may come at least in part from an inability to exploit nature because of low levels of economic and technological development.

Besides the crude contribution of traditional African societies to the world environmental crisis mention must be made of the more catastrophic contribution of modern Africa to the environmental crisis, Ogungbemi recognizes the drive to catch up with the developmental pace of the western world by African state government as responsible for the mass destruction of our ecosystem through unguided explorative engagements with African natural resources, the flora and Fauna. Many African nations are resource rich, but because their economies are not structured to take full advantage of these resources, they are exported with little or no value added. The net results are relatively few jobs and other economic advantages (and what advantages there are often siphoned off by the corrupt elite) and considerable environmental damage. Moreover, the damage often results in loss of agricultural land that the poor rely upon, and significant pollution of waterways.

Water is another essential natural resource that has been adversely affected in modern African through human activities.

the deposition and dumping of toxic waste on the African coasts and inland by industries both within and outside the continent, pollute the water through oil exploration and defacto spillage, and through bacteriological and chemical agents like fertilizers have made our waters unsafe not only for humans but also for other species in our waters.

Ogumbegmi further pointed out how air which is an essential natural resource for living has been threatened by human techno- scientific activities. Most fundamental in this regard is the uncontrolled nature of the emissions coming out from automobile industrial machine, artillery air raids, etc. In addition to the causes of pollution of air, land and water in Africa, Ogumbemi equally identified the unprecedented population growth in contemporary African as another factor that has continued to aggravate the destruction of the environment in Africa. The logic here is simple: the more the population, the more the stress on the natural resources and consumption ipso factor increase. More consumption results in more disposal of waste and where waste is carelessly managed as it is the case in many African states, the more hazardous the environment is prone to. It needs to be stated, however, that Ogumbemi posited that it is not clear that population by itself is the key problem.⁶

Granted that many African traditional folks as well as their contemporary counterparts have in some ways contributed to the general environment problems of the world today, Ogmgbemi equally underscores how traditional Africa has lived with nature with respect and awe. He writes in traditional environmental management thus:

In our traditional relationship with nature, men and women recognize the importance of water and air management to our traditional communities. The ethics of

not taking more than you need from nature is a moral code. Perhaps this explains why earth, forest, rivers wind and other natural objects are traditionally believed to be both natural and divine. The philosophy behind this belief may not necessarily be religious but a natural means by which the human environment can be preserved the ethics of care is essential to traditional understanding of environmental protection and conservation.⁷

By ethics of care Ogunbemi meant an orientation in which one is not taking more than one's needs from nature. However, Ogunbemi is quick to note that this moral code is not unique to African societies as it has a universal appeal and applications, and that there are some interlocking questions that may obliterate its sensibility, justification and adoption in contemporary African order. Pertinent among these questions are. How do we know how much we need, given, the nature of human greed and insatiability? Who judges whether we have been taking more or less than need from the natural resources? If we have been taking more than we need, what are the penalties and how fair are they?

The fundamental questions raised by Ogunbemi are quite strong and as a consequence, he attempted a reformulation of the traditional environmental practices of *Ethnic of care* in order to make it applicable to contemporary African situation. This conceptual reformulation pale into what Ogunbemi called *ethics of nature- relatedness*. According to him, ethics of nature relatedness asserts that our natural resources do not need man for their existence and function. the ethics of nature relatedness can be succinctly stated as an ethic that leads human beings to seek to co-exist peacefully with nature and treat it with some reasonable concern for its worth, survival and sustainability.⁸

In Ogumbemi's submission, ethics of nature relatedness has three basic elements; reason, experience and the will. It does not attribute natural resources to a spiritual nature nor does the creation of natural resources have any religious affinity. With this new ethical thinking, Ogumbemi's expectation is that our present reckless use of nature can be put into order.

In addition to this environmental ethic, he offers some practical suggestions on how to mitigate the current environmental crisis in African. One, he suggested the generation, transmission and distribution of solar energy at a reasonable cost as a safety value in reducing African over reliance on fuel wood, coal kerosene, gas, and petrol as source of energy. Two, on the issue of population, Ogumbem prophesies that when our population has reached an alarming situation nature will invariably apply its brek through volcanoic eruptions, earthquakes, etc., and have a drastic reduction on our population growth rate. Three, he recommended a turnaround in Africa's political leadership in order to put in place good policies that are environmental friendly, he urged them to demonstrate the political will that is necessary in reducing the amount of industrial and agricultural wastes and properly dispose of them so that both our industrial and commercial centers as well as our rural areas are safe from air, land and water pollution.

There are some critical problems in Ogungbemi's ideas of environmental crisis in Africa and his environmental ethics. But before exposing these, let us also see the perspective of Godfery Tangwa on an African orientation in environmental ethic

Eco Bio Communitarian Theory

Tangwa is another Africa philosopher that has made some reflections and contributions towards creating philosophical awareness on the need for an ethic of the environment in Africa. In his paper: *Some African Reflections on Biomedical and Environmental ethics*, Tangwa bases his conception of an African orientation in environmental ethnic on the metaphysical outlook of pre- colonial traditional African societies, which he called *eco-bio communitaiarian*.⁹

This metaphysical world view involves the recognition and acceptance of inter-dependence and peaceful co-existence between earth plants animals and humans. This metaphysical outlook underpinned the way, manner and cosmic relations between human beings. It is also responsible for why traditional Africans were more cautious in their altitude to plants, animals and inanimate things and the various invisible forces of the world. True to Tangwa, traditional Africans were more disposed towards the attitudes of live and let live. Tangwa emphasises further that the traditional African metaphysical dichotomy between plants, animals and inanimate things, between the sacred and the profane, matter and spirit, the communal and the individual, is a slim and flexible one.¹³ it is in line with this metaphysical framework that one can consistently and coherently situate the people's belief in transmigration of the soul into animals, plants or into forces such as the wind. On the basis of this metaphysical understanding of nature and the nature of man Tangwa says that such a mindset has a very significant implication for the way nature is approached and treated by traditional Africans. Illustrating his position on the conciliating relation between human and the environment in tradition African culture, Tangwa cited the stance of his own culture, the Nso in Cameron, According to him, the *Nso* attitude

towards nature and the rest of creation is that of respectful co-existence, conciliation and containment, there are frequently offerings of sacrifices to God, to the divine spirits, both benevolent and malevolent, to the departed ancestors and to the sundry invisible and inscrutable forces of nature.¹⁰

In all these, the point of Tangwa is that African culture is not against technology whole handsomely, but consistent with cautious and piecemeal use of technology. And given the respect for natural human values that adorn traditional African culture, there are some lessons to be learnt by western culture that has subjected such values to the caprice of the good of technology, industrialization and capitalism.

What is more opposite for Tangwa is that there is nothing wrong with the technology in and of itself but only with the motivation for its development and the uses to which it is put. He condemns the motivation for development of Western technology and the uses to which it has been put which he identified as the will to possess and dominate the world. In his submission, a more humble motivation for the pursuit of science and technology based on the eco-bio-communitarian attitude of live and let live can be substituted for the aggressive motivation of domination to the immeasurable advantage of the whole of mankind.

Commenting on the African perspective on environmental ethics of both Ogungbeim and Tangwa is necessary. This is because there are points of disagreements between the two even though they both try to bring to fore solutions to the peculiar African environment crisis. According to P. Ojomo of the Lagos State University, Ogungbemi proposed a reconstructed return to the traditional attitude reflected in the ethnics of care, regarding our interactions with the environment led him to what he termed

ethics of nature relatedness. This ethic of nature relatedness is not a preservationist approach nor is it in any way non anthropocentric. It does not even imply, as he observes, that natural resources actually have a spiritual nature rather it is an approach that reorganizes that humans necessarily rely upon the natural world for existence because of this reliance, we must treat the environment in which we live with respect for the sake of current and future human wellbeing. One major problem with Ogungbem's ethics of nature relatedness is that it bears little affinity with African cultural belief system. Though Ogungbem's discourse shows a good understanding of African dimension of the environmental crisis, especially with his analysis of the traditional and modern African societies' contribution to the complexity of the environmental crisis, his position on the needed environmental ethic is alienation of the African spirit and peculiar experiences.¹²

Quite true, as he states, environmental problem in African and anywhere else is primarily a consequence of human action. And as value systems inform our actions, we need to search for a viable environmental ethics that is in agreement with African ontology. This is essential in order to pave way for environmental policies that will be compliant with the historic culture experiences of the people and barriers to sustainable green environment. In fact, Ogungbem's alarming recommendation that nature should invariably apply its brake through volcanic eruptions, earthquakes and others in order to have a drastic reduction in African population growth rate is reflective of the disconnectedness of his ethics of nature relatedness and African ontology.

The above mark of deficiency in Ogunbem's ethics of nature relatedness is the strong point of Tangwa's environmental ethics

of eco-in-communitarian. Though not without its own problems, the merit of Tangwa's position is that he reorganized the indispensability of African metaphysics in the construction of a meaningful African environmental ethnics. The absence of the dichotomy between plants, animals and inanimate things, between the sacred and the profane, matter and spirit, the communal and the individual in the African metaphysical worldview informed the traditional African disposition and attitude of live and let live. Such metaphysics is not one of domination instigated by greed nor is it consumerist in nature. Latent in that metaphysics are folkloric ascertains and certain taboos that are conservational of iconological balance of the environment. The problem with Tangwa's exploration of an African environmental ethics is that it is an ethno-philosophical defense of indigenous African treatment and management of the environment. He never reorganized the ways and manners by which traditional African contributed to the degradation of the environment albeit ignorance and poverty. This is the strong and commendable point explicit in Ogungbem's position.

In the account of both Ogungbemi and Tangwa, some fundamental questions, which are ethically essential to a plausible African orientation in environmental ethics, are left upraised let alone discussed and this shall form the concept we seek to pursue in this work such questions as what should be the nature of human obligation and role in the relationship between humans and nature? How can the human person who has a pride of place in African thought system be fitted nonanthropocentrically into African environmental discourse? What is the need for an environmental ethics that is African in orientation? And must such be exclusionary of the existing known environmental theories from the West? What are the political, cultural, economic, educational legal and moral

imperatives to be taken into consideration in the construction of an African environmental ethnics in order to salvage the African environment from further deterioration? The solution to environmental destabilization is not purely technological or exclusively attitudinal. Environmental ethics no matter how grounded in African experience or intellectually sophisticated it can't alone solve the environmental crisis in Africa. There has to be an orientation that keeps in mind the various imperatives as mentioned above.

We will in the next subheading look at other relational environmental theories as put forward by Ramose, Behrens, etc. This will be in line with our commitment to look at some of the African environmental theories and see their strengths and weaknesses before we try to put forward a plausible interpretation of an African non-anthropocentric environmentalism. It is worthy of note that these theories by Ogungbemi and Tangwa are all attempts at positing a non-anthropocentric interpretation of African attitude to the Environment.

Ecology through Ubuntu

Mogobe B. Ramose wrote a brilliant article to articulate African conception or attitude to the environment in the article he titled *ecology through Ubuntu*.¹³ He posited that *Motho ke motho ka Batho* is a Sotho proverb found in almost all the indigenous languages on African. It means that to be human is to affirm one's humanity recognizing the humanity of others and on that basis establish human relations with them. Accordingly, it is *Botho* (humanness or humanity) and a humane, respectful and polite attitude towards other human beings which constitute the proverbs core or central meaning.²¹ Neither the single individual nor the community can define and pursue their respective

purposes without recognizing their mutual foundedness, their complementary natures. Wholeness is the regulative principle here since what is asserted is that the single individual is incomplete without the other.

The concept of Batho or Ubuntu, as it is referred to by Ramose in indigenous African languages is not readily translatable into humanism, especially if humanism is understood as a specific trend in on the evolution of Western philosophy. Humanness for him is a better rendition of the concept. According to Ramose, humanness suggests both a condition of being and the state of becoming, of openness or ceaseless unfolding. It is thus opposed to any “ism” including humanism for this tends to suggest a condition of finality, a closeness or a kind of absolute either incapable of or resistant to, any further movement.¹⁴ But motion being the principle of change, it follows that resistance to motion is tantamount to resistance to change. Ramose avers that this basic difference between humanness and humanism speaks to two difference perceptions of and perspective on, reality or being. Humanness regards being, or the universe, as a complex wholeness involving the multi layered and incessant interaction of all entities. This condition of permanent, multi- directional movement of entities is not by definition chaos. On the contrary, it is both the source and the manifestation of the intrinsic order of the universe. Herein lies the ecosophical dimension of the indigenous African concept of *Ubuntu*.

The principle of wholeness applies also to the relation between human beings and physical or objective nature. For Ramose, to care for one another, therefore implies caring for physical nature as well. Without such care, the interdependence between human beings and physical nature would be undermined. Moreover human beings are indeed an intrinsic part of physical nature

although possibly a privileged part.²³ The point Ramose tries to show is that humans are parts of the whole of nature but having a special place. Accordingly, caring for one another is the fulfillment of the natural duty to care for physical nature too. The concept of harmony in African thought is comprehensive in the sense that it conceives of balance in terms of the totality of the relations that can be maintained between and among human beings as well as between human beings and physical nature. The quest for harmony is thus the striving to maintain a comprehensive but specific relational condition among organism and entities. It is the continuous striving to strike and then maintain a balance between human beings and physical nature.

The loss of *Ubuntu* for Ramose is compensated for by the somewhat disconsolate comfort and easy life brought about by technological advancement continues to reaffirm the need to restore *Ubuntu* because more than ever before, humanity is faced with the threat of catastrophic ecological disaster. This is exemplified by widespread air pollution, climate change, the destruction of the ozone layers and the ever constant threat of nuclear homicide. Botho can make a significant contribution according to Ramose to the quest for universal peace now threatened by nuclear war, however, remote such a war may seem. As is widely understood, while nuclear war will reduce the planet to a radioactive rubble, any nuclear accident will have far reaching ecological consequences. The threat of nuclear war represents a watershed in thought on war and peace as it underline the fundamental irrationality of resorting to such a method of warfare. Thus, it simultaneously enjoins not only would be nuclear belligerents but also all human kind to seek for peace and build a solid foundation for the construction of peaceful relations among human beings to seek for peace.

Parental Earth Ethics

Ecophilosophy can provide a practical basis upon which to formulate a new ethics that would take into accounts the complexity and totality of nature. This, Oruka and Jumia call *parental earth ethics*.¹⁴ Parental earth ethics is not simply on intellectual enquiry. It is the basis upon which different cultures around the world including Africa will base their environmental perception. This ethics can be presented on the form of principles and rules.

Imagine families with six children, two of the six are relatively rich and four generally poor. Among the rich, one is extremely rich while among the poor, three are very poor. The reason for the difference in status have to do partly with the family history, partly with personal luck and partly with individual talents. Though the children have different and diverse possessions, they have certain things in common such as parents (whether alive or diseased), they are also common in that each of them has status and achievements based on the teaching which the family as a whole provided. Some made better use of that while others may have squandered it.

The children find that their lives and relationships are guided by the unwritten ethical laws which can best be summarized under two main principles (i) Parental debt (or bond) Principle (pp) and (ii) individual luck principal.¹⁵

Parental Debts Principle

This principle according to Oruka and Jumia, consists of four related rules dealing with family, security and dignity, parental debt, and individual and family survival. The family security rules states that the fate and security (Physical or welfare) of each member of the family is ultimately bound up with the existential

reality of the family, as a whole. Any one of the six members may for example, be arrogant and have enough to claim self-sufficiency and independence from the rest, however, eventually, the person and the person's own progeny may experience a turn of events which could make them desperately in need of protection from the family.

History abounds with such example; both the Roman and the Otoman Empire disintegrated and their children and dependents sought their security and fate elsewhere. Western Europe was liberated from economic rain after the Second World War by a power outside her borders and today, the former Soviet Union is desperately looking for rescue from such a small power as Italy.

The kinship rule is that the life condition of any member of the family affect all the others materially and emotionally, as no member can be proud of his or her situation, however, happy, if any member of the family tree lives in squalor. There is a partial non earthen application of this rule in our current world. European powers are more inclined to help fellow Europeans out of their squalor than they are prepared to do the same for some third world country. The parental debt rule assumes and explains the relationship and debt between the family members. Whichever member is affluent or destitute owes his fortune or misfortune to the parental and historical factors inherent on the development of the family. Hence, within the family, no one above is fully responsible neither for his affluence nor for his misfortune.

The individual and family survival rule states that no member of the family given the above rules has any moral obligation to refrain from interfering with the possession of any brother or

sister who ignores the obligation to abide by the rules of the family ethics. This rule allows the disadvantaged to demand assistance from the affluent but it also allows the creative and the hardworking members of the family to repossess underdeveloped possessions of the idle relatives and develop them for use of posterity.

This is made up of three constituent rules according to Oruka et al, dealing with personal achievements, personal supererogation, and public law. The personal achievement rule states that what a member passes is due mainly to the person's special talents. This is a kind of family individualism which disregards historical experience and the organic constitution of the family. The personal supererogation rule provides that every member has a right to do whatever he or she wishes with his or her possession. Finally the family public laws states that any member of the family who contravenes the right of another member as given by the second principle will be subject to the family public law, and would be punished or reprimanded and ordered to restore justice. The parental debt principle takes precedence over the individual lack principle in case of a conflict between the two. And this is all it should be. Why, for example, would we not see it as senseless that an individual member of a family would want to do anything she wishes with her possessions, while a member of her kids or kin may be in desperate need of help? The basic ethical rationale for why the parental debt principle takes precedence is as follows, the individual luck principle (P) is supported fundamentally by the "right of first occupation, personal luck and achievements, i.e., the veil of fate but the first principle (PP) springs from the fact of organic unity between the children, the common pool of their wealth (whatever the differences in possessions) and the need for common security. The ethics of common sense shows that when

in any given family or community matters of common wealth, and common security conflict with matters of the personal possession, lack or achievements, the former must prevail over the later.

There is no country, he argues, in which for example, an individual institution will be safeguarded if it endangers the security or the economy of all the nation. And it is also clear that no country will accept the wish or a will from one of its citizens which stipulates that upon death, all his achievements, however, dear to the country, should be exterminated or kept out of use by anybody. The reason for such a will will be that those achievements are personal and hence, the personal superogation rule is to prevail. The objection to this will only be supported by involving the issue of common origin, common security and common wealth. It is clear for this, that the earth or the world is s kind of a family unit in which the members have kith and kin relationship with one another, so far our discussion is driven towards the claim that the earth is a common wealth to all humanity.

We are prepared to concede that the world has no sovereign. But this does not affect the claim that planet earth not the world is a common good or heritage for all humankind. The question of the right by first occupation or personal achievement does not overrule this truth. If it did, then it would make no sense to accept the territorial rights of the Europeans who migrate to America after Christopher Columbus discovered that continent over five hundred years ago.

The territorial rights and sovereignty in the Americas would in that case rightly and legitimated belong to the indigenous Indians. However, the reality today is such that indigenous

Indians have no legitimate claim to that part of the earth than the migrants who invaded it five hundred years ago. Again if the rights of first occupation or generally the veil of fate is to prevail over the principle of the earth as a common good for all humankind then all that was procured through the colonization of such places like Africa and India should have been returned to these former colonies a long time ago. But nowadays, it seems it does not make sense to demand that such resources be returned. On colonialism, what we lament is the fact that those who developed themselves by it have turned their backs on those they colonized and now claim that they (the former subjects) have no share in or claim to any of their current possession. But given the organic constitution of life and the principle of parental earth ethics the former colonies have a legitimate claim to such possession.

Oruka et al tried to argue that earth is not a common good in the sense of sharing whatever we have gained from it with everybody. The earth is a common good only in the sense that is an open field for the survival of the fittest.¹⁶The third, Reich of Hitler was to last 1000 years. But it lasted for only 12 years. The Roman empire of course lasted a long time, but it did not last forever. Today, the descendants of (say) the British Empire will surely feel some relief and pride in any historical revelation of any good which the empire did to the colonies for it is precisely from the goods not the evils done by colonization that makes former subjects tolerant.

The kinship issue is not being dragged into this matter just as moralization of the virtue of declaring all human beings, and all species in nature as “brothers and sisters”, it is given here as an assertion derived from the ecological truth about nature and the ultimate common fate of all creatures living on planet earth.

Without the element of kinship or organic unity of nature none of the arguments of the current environmental protectionist would be valid for all peoples and nations. But given the organic unity of nature, the arguments make sense for it is clear that the pollution and the degradation of sections of the earth are likely to have consequence in the rest of the globe. This is the concern that led to the convening of the earth summit in Brazil in 1992. The meeting was a symbol of family gathering.

The last objective is one which claims that we are placing creatures such as even earthworm in the same moral level as human beings. Equality of all human beings may be understandable, but how about equality (say) between a head of a state and an earthworm? The earthworm does not demand or require equality with a head of state but nature demands that we do not extinguish earthworm specie. Earthworms are a part of biodiversity without which even a head of state will be non-existent.

There are basically two main reasons in the need for the sustenance of biodiversity. One is that all sentient- being has an intrinsic value and the other is that human life on earth is doomed to perish if we destroy biodiversity. Although the first reason is still too remote for most people to grasp, the second reason is and should be today common knowledge. We propose parental earth ethics as a basic ethic that will offer a motivation for both a global environment concern and a global redistribution of the wealth of nations.

African Relational Environmentalism

Relational theory in African ethical discourse was first put forward by an American born philosopher by name Thaddeus Metz. This he did in his intelligent article titled: *An African Theory*

*of Moral Status: A Relational Alternative to individualism and Holism.*¹⁷ This view argues that animals and humans both have moral status that is of the same kind but different in degree; in the sense that even a severely mentally incapacitated human being has a greater moral status than an animal with identical internal properties and a new born in fact has a greater moral status than a mid – to- late stage foetus. He argues too that the Holists accord no moral status to any of these beings assigning it only to groups to which they belong, while individualists such as welfares grant an equal moral status either to animals or severally mentally incapacitated humans. Relational theory of moral status, therefore, argues that it does a better job of accounting for degrees of moral status. Thus according to Metz, something has moral status in so far as it is capable of having a certain causal or intentional connection with another being.

This view is grounded in salient sub-Saharan moral views roughly according to which the greater a being's capacity to be part of a communal relationship with us the greater its moral status. I understand this theory to be purely African in a great sense. The more relationship is closer to human the more moral status it has. This, therefore, implies that a goat has better, moral status than a rat, it also implies that a mad man still has a stronger moral status than a goat because of the status of the relationship.

This theory has been criticized especially by Horthenske, in his *Animal and African Ethic* as anthropocentric. For him, it is human centered to judge moral considerability based on relationship with humans in particular. Otherwise why should it be humans whose close relationship with, confers moral status.¹⁸ The researcher understands Metz work to be strongly based on Africa ontology at least English speaking Africa. This relational

conception can also be seen in theories like Ubuntu Ecology. Ubuntu argues that all things interrelate but that humans are a privileged part of the relationship even though Romose failed to give the sense in which humans are privileged. This can, therefore, make the argument that the privilege accorded man in Ubuntu is anthropocentric. The second strong importance of the three theories; Ubuntu, parental earth ethics and rotational theory is that they are somewhat not ethnocentric. They do not base their arguments on the ancestors, gods, spirits and those ethnocentric insinuation that in my view do not pass for professional philosophy. One can assert the ontology of particular society but philosophy demands that we do not just stop at a sociological religious interpretation of being in societies but sieve out philosophical critical perspectives that is universalizable and that can pass for real philosophy otherwise it can only pass for ethnophilosophy. I hereby applaud the sense in which Ubuntu, parental earth ethics and Relational moral status posit their theories. Nevertheless I argue here that if we extend this relational moral status to the environment like Kevin Behrens did few problems will emerge that will tilt the theory towards anthropocentrism.

Behrens Kelvin after citing few examples of works of African philosophers that posited the interrelated and interconnectedness of being, posited what he called African relational environmentalism.¹⁹ His project was to articulate if possible, a promising non-anthropocentric African theory as a counter to the anthropocentric view of philosophers. According to him, some philosophers like Callicott, Bujo, Tempels have claimed erroneously that African ontology favour anthropocentrism. He, therefore, posited that contrary to anthropocentric ideas that there is a strong emphasis on the interrelatedness or interconnectedness of human beings and the rest of nature that

is also evident in African thought providing basis for a promising African environmentalism.

According to many African theorists, the belief in the interdependence of natural entities clearly implies that people should respect and live in harmony with the community of nature. The robustly communitarian character of much African ethic informs this moral requirement to live in harmony, individual members of the community of nature can be fulfilled only in and through their relationship with others. These relationships are often characterized in familial terms, emphasizing the need for mutual support, solidarity, care and nurturing. I have suggested elsewhere that this approach to environmentalism holds promise for environmental ethics because of its relational focus. This is what Behrens calls *African relational environmentalism*.⁴² He avers that on this relational approach, virtue is achieved through maintaining harmonious relationships that prioritize neither the individual nor the community while respecting both. Since the interest and needs of both individuals and groups always count, and always need to be kept in balance, this approach is able to avoid the extreme of both individualism and holism.

In developing this non anthropocentric African Relational Environmentalism further, Behrens also tried to establish what kind of things might plausibly, be considered to be part of the community of nature and capable of being included in this familial or communal relationship. Since on this African approach, harmonious relationships with other natural entities ought to be nurtured. In defining what should constitute the community or what should be morally considerable, Behrens tries to differentiate between moral status and moral considerability. For him, moral status could mean just respecting

and promoting a being but moral considerability is much more. In the literature of environmental philosophy, the notion moral considerability is quite often used interchangeably with the notion of moral value. But the two notions are not exactly the same. Moral value is something that ought to be protected and/or promoted. But to say that something has moral considerability is to say that its existence, wellbeing, interest, preference and or some other aspects of it ought to be directly rather than indirectly given positive weight in our moral deliberations about action that are likely to affect it. Hence while things are mostly considerable, it is not necessarily the other way round.

Thus Behrens identified few factors that confer moral considerability: life, sentience and rationality. He also identified few factors that confer moral considerability in African thought system, example interrelatedness, life force, totemism, inhabit spirit and folklore etc. Behrens argues, however, that if one understands life as existing in individual things as well as in an interconnected web, then this African view may well be described as life – centered approach. To distinguish it from more conventional biocentric or life centered approaches, he refers to this view as “web of life centered”²⁰ For him, what grants moral considerability or constitutes community to an entity is not that it has an individual life telos of its own but that it is part of the web or fabric of life. And then on this view all things that can be part of this web of life that themselves share or enable this life can be morally considerable. Since everything that forms part of the web is in some way interconnected or interdependent with other parts of the web, all these entities need to be taken into account morally. Hence Behrens asserted that most plausible interpretation of the various overlapping conceptions of moral considerability in African thought is that

they ground moral considerability in being part of the interconnected web of life.

In essence, Behrens' African relational environmentalism and Thad Metz' relational theory differs in some subtle sense, while moral standing or moral considerability is granted to being the closer they relate to human, Behrens' view of moral status is web of life centre entity. This in my view, is a broader perspective. While Metz's concept of African moral considerability is a being that relates more closely to humans, Behrens conception is somewhat holistic.

Humans have a place in the ecosystem and such place is not right based where humans have the legal or whatever right to kill, eat and dominate the world, rather it is a place; an obligatory place, a task based, job oriented place. It is humans who should take responsibility for the whole of ecosystem.

Obligatory Anthropoholism; a Plausible African Perspective to the Environment

The theory I wish to pursue as a plausible alternative to these theories should be one that will have the following characteristics first, it should show mastery of African ontology. Thereby being African enough. Second, it should highlight holism as an important aspect of Africa ontology which informs our relationship to the environment. Third, it should relate what an African environmental ethics should be, being informed and also standing on the view of other African environmental ethicists. Fourth, the theory I wish to pursue should have and retain a special, privileged place for humans in line with African ontology. This pride of place has been the subject of misunderstanding in African environmental ethics as it is often branded anthropocentric. It is worthy of note here that African

ontology has that place for man from Tempels, Ogotemeli, Ubuntu, Uwa ontology, Igwebuike ontology, Ife and Onye ontology, Relational moral status, etc. Fifth and more importantly, there should be a sense in which humans are a privileged part in the holistic ecosystem. This sense brings to the fore the non-anthropocentric understanding of African environmental attitude. This portends that even though humans are a privileged part of the ecosystem, it cannot be interpreted as anthropocentric. Sixth, I will give an application of my theory into real environmental issues like erosion at Oko and Ekwulobia Nigeria.

I call this theory, Obligatory anthropoholism. This underscores both the place of man (Anthropos) the holistic concept of being in Africa, whereby all existing things intercompensates each other (Holism) and I give a sense in which humans are singled out of the whole. This sense is the fact of obligation. It is human who is under obligation to care for the whole of ecosystem. I am writing because I wish to prescribe to humans and not cows, how to relate, care, tend and conserve the ecosystem.

In obligatory anthropoholism, obligation is not targeted at just human ends, for human benefit or for his economic enrichment, rather the African concept of holism; the interrelatedness, interconnectedness, intercompensation between both the seen and the unseen elements puts humans under obligation to tend, care and conserve the environment. It is nonanthropocentric when we look at the end to which obligatory anthropoholism aims. The chief end or purpose for anthropocentrism is human benefit but not so for obligatory anthropoholism, the purpose obligatory anthropoholism is holistic, the whole of ecosystem, humans are just the agents that can fulfill this end. Thus, I propose that African environmental philosophy seen from this

light provides a promising nonanthropocentric, practical and very simplistic approach to the environmental concerns of both Africa and the world at large

Few objections and criticisms can be made against obligatory anthropoholism in my view; the first is that it is anthropocentric because it makes humans the agent of obligation and sees human from a privileged perspective. This by implication will make humans exploit rather than tend the environment, at the end of the day, we are back to anthropocentrism again. Second, there can be criticisms about its Africanness, where scholars have argued that African environmental perspective is simply anthropocentric. Third, is the question of how this theory can comfortably fit into the issues and challenges in the African soil, fight and defeat them.

It is this relationship defined from the obligatory role that makes African relational environmentalism worthwhile. It is the obligatory role of humans to the environment that makes it necessary to assert as Metz does, that it is relating with humans that somewhat confers moral status. The implication of this theory is germane, humans have a pride of place in African ontology and this place is the place of obligation to care for not just herself in the sense of using the physical nature for personal gains but rather in holistic sense of being the one who enforces holism.

In the end, all theories if seen from an obligatory action perspective will come back to an agent (humans) and thus nonanthropocentric view can as well be justifiable with this. On the question of the Africanness of obligatory anthropoholism, a theory in African environmental philosophy is African to the

extent to which it imbibes the values extracted from African ontology.

Conclusion

Obligatory Anthropoholism has a strong conviction that environmental ethics or no environmental ethics, Africa should be developed; starting from the human person to infrastructure and to all other spheres of human endeavour. Obligatory anthropoholism does not abdicate the social responsibility of development to God, the Government or institutions alone; it asserts that all humans have something to add. It also calls on African governments to establish more educational institutions. Here lies the developmental import of obligatory anthropoholism as a plausible non anthropocentric African environmentalism. With adequate enlightenment, even the uneducated can value the environment. With adequate enlightenment, even anthropocentrism will lead humans to care for the environment. Without adequate enlightenment, even nonanthropocentric environmental ethics and obligatory anthropoholism will not be effective as regards environmental conservation. Obilgatory anthropoholism, therefore, affirms the importance of humans in any developmental concept or approach in Africa.

Endnotes

1. www.conserve-energy-future.com/15_current_environmental_problems.php
2. Ferre Frederick. 'Technology, Ethics and the End of Nature' In H. Odera Oruka (ed) *Philosophy and Ecology; Philosophy of Nature and Environmental Ethics*. (Nairobi, Kenya. ACTS Press, 1994). p. 220
3. Godfrey B. Tangwa. 'Some Reflections on Biomedical and Environmental Ethics' In Kwasi Wiredu (ed), *A Companion to African Philosophy*. (Malden: Blackwell Publishing Ltd, 2004) p.388
4. Ogungbemi, Segun. "An African perspective on the Environmental crisis" In Pojman, Louis J. (ed) *Environmental Ethics. Readings in theory and application*, 2nd ed (Belmont, C.A Wadsworth Publishing Company 1997) p. 330
5. *Ibid* p. 204
6. *Ibid* p. 205
7. *Ibid* p. 206
8. *Ibid* p. 207
9. Tangwa, Godfrey. "Some African Reflection on Biomedical and Environmental Ethics" In Kwasi Wiredu (ed) *A Companion to African philosophy*. (Oxford: Blackwell publishers, 2004) p.385
10. *Ibid* p. 389
11. *Ibid* p. 387
12. P.A Oyomo. "Environmental Ethics: An African understanding", In *the journal of Pan African studies* Vol 4. NO. 3 (Mandi 2011) p. 103
13. Mogobe B Ramose: "Ecology through Ubuntu" In *Journal of African Ethics*, (Harare: Mond Press) p.309
14. H. Odera Oruka and C. Juma. "Ecophilosophy and Parental Earth Ethics" In H. Odera Oruka (ed) *Philosophy, Humanity and Ecology*, (Nairobi: ACTS Press, 1994) p.117

15. *Ibid* p 117
16. *Ibid* p. 119
17. Thaddeus Metz. “An African Theory of Moral Status: A Relational Alternative to Individualism and Holism” In Robert F. Heeger and Albert W. Musschenga (eds) *Ethical Theory and Moral practice an International Forum*. P. Vol 15. No. 3 (Springer: 2012) p 387
18. Kai Horsthemke. *Animal and African Ethics*, (London: Palgrave Macmillian ,2015) p. 15
19. Kelvin Gary Behrens. “An African Relational Environmentalism and Moral Considerability” In *Journal of Environment Ethics*. (Crossmark: Vol. 36, 2015) P. 64
20. *Ibid*. p. 68
21. *Ibid*. p. 70

Chapter Eleven

EATING REGIMEN AND THE ECOSYSTEM: QUESTIONING THE SURVIVAL OF AFRICA

Aleke Matthew

*Department of Philosophy
Kogi State University Ayigba
Kogi State - Nigeria
toogood4god@gmail.com*

Executive Summary

Africa's vast landmass, ecosystem and biodiversity have the agricultural potentials of feeding the entire world. As a continent, the greater size of her land mass is blessed with arable land, abundant water and climate favourable to all year round production of cash crops and rearing of all kinds of animal. Between the north and south, suitable land could be found to grow nearly every type of food product known in the world. Despite all these, the continent still remain the world capital of food insecurity that the citizens have to substitute their eating proportion with synthetic food imported from abroad. Adopting analytical method, this paper sets up that the change in Africa's eating regimen due to food scarcity is step by step setting her health on time bomb because synthetic food runs parallel to Africa's organic make-ups and tropical conditions. Thus, agricultural based policies and implementations must remain the main and continuous target goal of government at all levels to ensure food security of the nation and not just rhetoric for electioneering campaigns and winning of elections. What's more, legitimate bodies entrusted to monitoring the standard and safety of foods imported as well as those manufactured in this nation should sit up to their responsibilities, else the entire health of the continent will be endangered in no distant future.

Keywords: Africa, Agriculture, Tropical Conditions, Organic make-ups, Health, Food, Synthetic Food.

Introduction

Human wellbeing is viewed from choosing the required reaction from among all that we eat which nature is equipped for giving. For example, "it has been demonstrated that food takes six to eight times longer to go through the digestive system in the Western nations than in parts of Africa and India where staple diet is wholefood" (Robert 129). When food eaten does not concur with the organic make-ups and tropical conditions, "body organs are typically subjected to pressure in other to separate it, in this manner subjecting our health to different kinds of foreign ailments" (129). Since it is in light of the necessity of what we eat in accordance with the organic make - ups and tropical condition that it has created to satisfy a scope of capacity it is able to do. When we neglect to keep to these standards our wellbeing decays. This is what happened in Europe (Change in eating regimen) in the nineteenth century. Same will soon happen to Africans if appropriate measures are not taken.

The Consumer and the Consumed

The asset of nature is something genealogically disseminated in accordance with their tropical conditions and organic cosmetics. The wellbeing of individuals in different topographical areas significantly relies upon their ideal utilization of their nature given sustenance. Just as those living in chilly climate decipher the world uniquely in contrast to those whose climate is hot. So likewise the organic make up and dietary way of life contrasts. To forsake one's nature given sustenance in line with his organic make-ups and tropical condition for the opposite is like putting a square peg in a round hole. The more we go for sustenance opposed to our nature given organic make-ups and tropical conditions, the more they imperil our wellbeing.

In a paper given to the Royal Society of Health in 1967 Dr. R. Logan, Director of Medical Care Research Unit, abridged the perils for moderately aged men as takes after:

1 of every 4 will suffer from chronic bronchitis; 1 out of 5 will suffer from coronary illness; 1 out of 12 a peptic ulcer; 1 of every 4 malignancy, of which 1 out of 30 will be cancer of the lung; 1 out of 12 will be admitted to a general hospital every year; 1 of every 300 will be admitted to a mental doctor's facility every year (9).

Lorgan additionally express, that a comparable picture for ladies can be condensed by saying that "1 out of 4 will be routinely going to a GP with a ceaseless ailment; 1 of every 8 will bite the dust of diabetes" (10). He concludes that, "coronary illness; peptic ulcer; growth, diabetes, another kinds of ailment is being seen in Western Europe simply because of the change in national diet" (11).

Research done by a senior medical specialist Mr. A. Elliot-Smith, at the Radcliffe Hospital, Oxford, demonstrates that:

There were just five instances of an infected appendix at the hospital between 1895 and 1905. There were currently more than 500 cases each year. Peptic ulcers were not recorded before 1890. However the most recent year 23,000 men were released from the armed force with this condition over a time of 30 months 1936-1941 (127).

Their ulcers according to Elliot "were not because of armed force life or armed force cooking; the greater part of the volunteers brought their ulcer with them" (129). In his (Mr. Elliot-Smith) analyzed records of six separate London doctor's facilities from 1925 to 1929, he found a sensational ascent in ulcers over this period.

Mr. Elliot-Smith had worked in Africa and had seen among unsophisticated local people groups the nonappearance of

diseases most common among the Europeans. Back in Oxford, he attempted his examination to build up whether these illnesses were newcomers or in the event that they had dependably been available. He "found that they were new and their occurrence ascended with the adjustment in the national diet because of the new mechanical procedures of refining sugar and flour" (131). Different specialists who had worked among rural peoples noticed a similar contrast in the example of illnesses and they all speculated that eating routine must have an impact in causation of the 'cultivated' ailments.

For instance, Surgeon Captain Cleave saw that "Africans who eat Western nourishment built up the new Western ailments, while the individuals who were all the while eating their traditional sustenance did not" (Cleave 59). This view has been supported by Dr. D.P. Burkitt, a recognized specialist then of the Medical Research Council London, celebrated for his work in diet related sicknesses to various districts of Africa. Burkitt worked with a South African specialist, G.D. Campbell, looking at the hospital records in Western sustenance regions with those in less sophisticated ones: they found that "the Western ailments included significantly more than a ruptured appendix and ulcers; they stretched out to diabetes, heftiness, coronary thrombosis, dental rot, varicose veins, diverticulitis, constipation and several infections probably related to constipation" (Burkitt and Campbell 7). This view was also supported by other medical experts working in different zones in Africa where traditional diets are being superseded by Western diets.

The most evident contrast in the eating regimen between the two gatherings is that Western diets "have white sugar and bread, processed, packaged and synthetic, while the older peasant diets are based on unrefined cereals, fruits and sugar" (9). The latter is what is called wholefood by the diet reformers, since little or

nothing has been expelled from the grain and the sugar cane. Dr. Campbell and Dr. Painter (specialists at the Manor House Hospital, London) during the World War II observed that in war-time when "these refined sustenance were proportioned as well as the extraction of supplements and wheat from bread had been constrained by law, these illnesses declined, just to shoot up again when the limitations were removed" (Campbell and Painter 19). The reason is that during the time spent refining flour for white bread and other kinds of sustenance, almost all of the nutritive value of the grain is cleared out. One may contend that these nutrients can be obtained by eating a varied diet.

On the other hand, this means that we have to eat too much to get adequate nutrition. Obesity due to overeating is also a disease of our time. More important than that, however, is that bran which is removed, should serve the function of stimulating the movement of the bowels. This may not be a nutritive function but it "cures the white man's ailment of constipation at no cost" (21). In tests by Dr. Painter at his hospital where he encouraged whole food diet to every one of his patients, demonstrated that whole food diet "had surprising outcomes in restoring their health" (29). On account of refined flour, sugar as starch is processed and consumed as sugar in the body. Refined flour is relatively unadulterated starch so when we take refined flour we put our health to the danger of extreme sugar. Since the expanding utilization of starches and refined sugar can be so intently connected with the new infections, Dr. Cleave and his associates have given a gathering of them one name, as depicted in their book *Diabetes, Coronary Thrombosis and the Saccharine Disease*. "Saccharine rhymes with Rhine" (32), to recognize it from the sweetener.

In the event that a relationship has in reality been set up between dietary habits in view of overabundance of sugar (saccharine) in

the body it ought not to be important to anticipate a comprehension of how this causes infection before endeavouring counteractive action. As these ailments are the aftereffect of abstracting from the 'whole food, we are faced with another episode of deficiency diseases such as scurvy, beriberi and rickets. These kinds of dietary deficiency diseases caused by these concentrated fragmented sustenance develops gradually over half a lifetime and after that shows itself in this wide assortment of degenerative ailments both acute and chronic.

Dr. Hugh Sinclair of Magdalene College, Oxford, a nutritionist, has for quite a while implicated some animal fats as a noteworthy reason for degenerative infections. He outlines his contention with lung cancer. Lung cancer is presently connected with smoking; however in Spain and Japan, where smoking is as common as in our own nation, lung cancer minimally exists. So there must be another factor: Dr. Sinclair believes it is the saturated fatty acids in animal fats. There are two kinds of fatty acids, one essential – the unsaturated fatty acid – and one not essential, the saturated fatty acids. The essential ones are not made in the body and must be taken in through sustenance. They have a tendency to be unsteady noticeable all around and turn rancid, so the manufacturers have discovered methods of changing their chemistry by saturating them. Here, then, we have another wellspring of deficiency. A deficiency of fatty acids "will weaken the membranes of our body cells, which serve to shield the cells from attack and infiltration by alien bodies liable to harm them" (118).

Dr. Sinclair did another test which his case demonstrates "that cutting edge high vitality bolstering of pigs additionally obliterates the basic unsaturated fats in their bodies" (15). In a letter to the *Lancet* (twelfth December, 1969) similar view was

upheld by Michael Crawford of the Nuffield Institute of Comparative Medicine, Crawford state:

Peoples have dependably eaten some fat, however just the cutting edge "high-vitality" bolster framework create a lot of saturated and mono-unsaturated short-chain fats.' In present day production line cultivating strategies 'fat appears to supplant functional tissue. We have examined 14 distinctive wild herbivorous species, and have been not able to discover any indications of such gross penetration, which prompts the topic of whether such lipid (fat) testimony is obsessive.' This fat is chiefly the inessential fat and isn't found on creatures ready to pick their own particular nourishment by free- range grazing (37).

Crawford trusts that just to quit eating sugar is not sufficient: we require additionally having the perfect measure of fundamental unsaturated fats keeping in mind the end goal to develop the supply routes of our body with appropriate auxiliary constituents. As Crawford says in his letter, "an endeavour at avoidance by modifying the harmed corridors through the correct eating routine ought to be sufficiently basic" (39).

We may include here that not only is the feeding of the animal indicated in modern agricultural methods but feeding of the plants as well. As the plants on which we and animals feeds are likewise fed by fertilizers and the cutting edge practice is to concentrate these similarly as flour and sugar are concentrated by extricating essential elements. This has been examined by Michael Blake in his book *Concentrated Incomplete Fertilizers*. There is no space here to examine it yet the standard is the same. "Nitrogen is amassed to the detriment of other imperative plant supplements which unbalances both the dirt and the digestion of the plant" (69).

Albeit hereditary control has brought about fowls and animals which change over sustenance all the more productively, it has additionally brought about less solid animals with diminished protection from sickness. Perpetual close constraint in structures and overwhelming stocking rates likewise militate against wellbeing. It has been questioned whether the circulatory framework in animals which has been denied practice can react satisfactorily to the additional requests put upon it by ailment. Regardless of all the examination into new antibodies and medications, ailment flare-ups in these structures appear to be unavoidable to achieve pestilence extents.

Where animals are kept in hundreds or even thousands "there can be next to no individual consideration and the training has developed of adding anti-infection agents to nourishing stuffs as a normal measure, as a prophylactic as well as a development promoter" (Belly 11). This has driven, throughout the years, to medicate protection in ordinary vegetation microorganism found in the gastrointestinal tract. Further, "this protection can be passed starting with one bacterium then onto the next and different protections can create against every known anti-infection. In specific conditions this protection has been passed on from creatures to man" (Copper 17). An expansive level of the consistently expanding revealed occurrences of sustenance harming every year have been followed back to abattoirs, poultry-pressing stations and homesteads of starting point. As indicated by the *Swann Panel Report on the Utilization of Anti-toxins in Farming*, "chloramphenicol ought to be pulled back aside from in uncommon instances of treatment and no anti-infection ought to be utilized as an encourage added substance in the event that it were utilized as a part of either human or animal treatment" (Swann 47).

Tests on eggs have demonstrated altogether less Cobalamin (vitamin B12) in battery eggs contrasted with strawyard eggs. The organic chemists answer (to Animal Defense Society for whom they did the tests) expresses: "The most emotional distinction is in the figures for Vitamin B12 (hostile to malevolent sickliness factor)" (56). This is not kidding particularly for veggie lovers.' A correlation of meat from oven chickens with that from unfenced chickens, completed by the Ministry of Agriculture, indicated "huge loss of thimine (vitamin B1) in the grill winged animals" (Brambell 51). Research has demonstrated that "there is just half as much iron in 'white veal' as in veal from regularly raised calves" (Harrison 29), an outcome not out of the ordinary since 'white veal' calves are sustained iron-inadequate drain substitute to keep their pale" (Vipond xxxviii).

Nutritionists Michael Crawford and Dr. Hugh Sinclair have discovered an adjustment from saturated to unsaturated fats in bolstered and free-range animals or brushing and slow down encouraged animals. The two researchers indicated an adjustment in cultivate frameworks as the reason. According to them:

... These bullocks are eating their natural food at present time, namely grass. But during the winter they will be stall-fed and would produce more saturated fat on them. The same is valid for pigs ... the broiler chicken have largely saturated fat as compared with free-running chicken, and same is true for battery egg as contrasted eggs from free-extending chickens. So the more we feed animals on their less natural food the more we produce saturated fat in their bodies and consequently in our own bodies (Sinclair 131).

Sinclair believes that "these abnormally large quantities of hard (saturated) fat are causing the epidemic of coronary diseases in man" (131).

Our ultimate survival depends on our ability to live in harmony with our environment, to work with nature rather than in spite of it. What is disturbing about the present health condition in Africa is that the tenets of good health – eating (diet) in conformity with her organic make – ups and topical conditions – which have been passed on from age to age – are being put far from the persons who tails them. We are getting to be mindful of the risks that emerge from the contamination and pollution of the earth: yet undermining as these may be, they are not any more hazardous than the adjustments in the synthesis of our food. The episode of foreign ailments in Africans is because she has demolished their health with synthetic food either imported or manufactured within. Synthetic food is hazardous to Africa health. At whatever point we Africa eats synthetic food our body organs are typically subjected to pressure in other to separate it, in this manner subjecting our health to different kinds of foreign ailments that we are experiencing presently.

Contextualizing the above painted scenario with what is obtained in Africa, Aleke Matthew writes:

Africa is a continent honored with immense arable land great climatic conditions that throughout the entire year, crops of different kinds can be cultivated and terrestrial animal of different sorts are raised. Plenteous ocean that a wide range of sorts of sea food could be reared in adequate amounts and between the Northern and Southern districts, fruits trees and vegetables of any kind can grow and make bounty yield without fertilizer in most of the places (26).

Yet the incongruity of the entire thing is that shockingly, many Africans are dying of different foreign ailments by consuming the hereditarily controlled, automated thus called "complex" precooked sustenance delivered and bundled from the West or Asia due to food shortage. Thus, Africa of today eats ten times

more sugar for each head than she did in the twentieth century. She has surrendered her eating regimen for the Western synthetic food as opposed to her nature given food in accordance with her organic make - ups and tropical conditions.

Among these nourishments obscure to our African legacy are: soft drinks, ketchup, organic product juice (with natural product enhancing artificially made), frozen chicken, fish, meat and yogurt, pies, cakes; treat of different pastries to mention but few. These nourishments with cosmic glycemic record come in whimsical names that float our consideration from the very truth that they are sugars such as: mannitol, dextran, sorbitol, and refiners' syrup, D-mannose, just to say however a couple. This very abbreviated rundown would be deficient without saying aspartame which is 200 times sweeter than sucrose, and saccharine which many people contend isn't possibly cancer-causing however have concurred that it has no sustenance vitality, no healthful esteem and is 300-400 times sweeter than sucrose. All these in various amounts are included for enhance upgrade and conceivable conservation.

Today, Africa is suffering from different kinds of foreign and unknown ailments because she has surrendered her nature given food for hereditarily controlled automated food. The food insecurity that put Africa in this mess is nothing rather that Africa problem is that she does not know her problems. The inability to know that her problems not even to talk of discussing what could be the reason and conceivable approach to turn away from it is because she has lost her social legacy and has cheapens herself in all part of human endeavour. Africa has lost hope and confidence on herself to the extent that she no longer believes on herself for anything at all. She has terribly rely upon the West for everything and sees whatever originates from West as prevalent and most solid notwithstanding when it is disservice to her life.

This reliance complex of Africa on the West made Pope John Paul II to yell at Africa though paternal, he said, "Africa *alzati e camina*" (Onuigbo 31) – Africa stand up and walk! Pope was basically requesting that Africa wake up and be confined from the Western autonomy. Yet, Africa does not just rely upon the West for what she can't do for herself but additionally on the one she can do for herself.

Instead of stabilizing her agricultural system to ensure adequate harvest and supply of the nature given sustenance in line with her organic make - ups, Africa has insensibly down tool every of her arsenals towards agricultural due to lack of political will and shortsightedness of her leader. Using Nigeria as an example, "it is disgraceful that Nigeria imports palm oil from Malaysia, a nation Nigeria thought how to plant and process oil palm" (*The Punch*, January 30, 2001, 32).

Revamping and Expanding Agricultural Extension Services as a way out of the Chokeholds

Good agricultural extension is the only way through which food sufficiency can be achieved in Africa. The principal task of contacting rural people and developing extension information, credit, productivity, imputes, processing and marketing services falls within the duty of the government. If farmers in Africa, especially those oriented to small and marginal farms "should be able to receive more intensive and continuous attention than the present system of spasmodic ill-equipped and insufficiently-motivated government" (Ebong 175-176). African will not only feed herself but the entire world.

In addition to making the services acceptable to their beneficiaries, project manager must ensure that each services are, in fact, accepted and used by the farmers. Thus, farmers must be induced and convinced that the new or allegedly improved

services, resources or techniques will actually benefit them and that the changes required in such areas as cultivation methods, water management or marketing procedure worth the cost and risk to them of accepting the change.

The Process and Content of Improved Agricultural Extension Services

Agricultural extension is “a process of rural education, by which the masses learn improved practices of production marketing, conservation and better quality of life” (176). It plays a crucial role in boosting agricultural productivity, increasing food security, improving rural livelihoods and promoting agriculture as an engine of poor economic growth. Typically they obtain their training largely by informal means, extension-type demonstration, meetings, workshops and related communication methods including mass media both in field and in the community.

In summary, the training comprises the following operations:

Establishing model farms to demonstrate modern techniques of production to farmers; laying out demonstration and experimental plots; formation of farmers’ Cooperative Association; arrangement for training of farmers with emphasis on farm management problems; imparting social education and encouraging cultural activities for inculcating a spirit of self-help and self-reliance amongst them. Teaching farmers the cropping practices like: increased plant population, proper plant spacing, followed by use of good seeds treatment. Proper tilling, weeding and improved seed bed. Nursery and land preparation. The use of improved varieties, better water control. Further inputs of fertilizes, better insect and disease control, and more efficient post-harvest technologies (Bottral 150).

Under rainfed conditions, the extension service plays the role of: “the identification of farmer’s problems and needs (and the referral of resulting information to senior official, research stations or other agencies, where necessary); the provision of advice to farmers about the techniques of agricultural production; co-ordination with agencies, responsible for the provision of inputs (seeds, fertilizer, pesticides, etc.) and credit” (151).

Here, it is important to note that “in every early stages of agricultural development (where aggregate demand for purchase may be small, private commercial activity is low and the public sector’s manpower resources are also very limited) there may be no alternative to giving the extension officer direct responsibility for input supplies as well as technical advice” (Ebong 177). However, once the demand for inputs and credit becomes substantial, the function should be separated among different special agencies, otherwise the extension staff will be prevented from performing their central advisory affectively because of heavy demands on their time from other quarters.

The nature of extension function under irrigated condition has several distinctive features. One of which is that there tends to be greater predictability and homogeneity in cropping pattern and the timing of farming operations in irrigated than rainfed areas; “this is particularly so in cases where the operating agency deliberately sets out to control farmers’ choice of cropping pattern or else effectively limit the range of their choice through strict rationing of scarce water supplies” (178). Although relatively homogenous in physical terms, irrigated areas contain as much social diversity as rainfed area and wherever there are marked differences between resource endowments of larger and smaller farmers, the use of diagnostic, diversified approach is essential.

Therefore, under irrigated conditions, the task of the extension service should be that of:

the provision of specialist advice to farmers about methods of land preparation and frequency and depth of water application (water management extension); the development of farm plans which will encourage more economic use of expected patterns of water delivery; discussion with water distribution agency about patterns of water demand; short-term; local variations/deviations from seasonal plan; seasonal joints planning of expected seasonal distribution pattern; long-term e.g. change in frequency of channel rotations or amounts of water delivered per rotation; or major changes in cropping patterns or timing of water release from reservoirs (Bottral 152).

In order to monitor and evaluate the performance of agricultural extension staff in the case of under irrigation agriculture, the controlling agency or government should find out if detailed written procedures exist for planning, executing and monitoring the following activities:

Identifying farmers problems and needs; advising farmers about production methods; providing specialist advice to farmers about water management; developing farm plans designed to make more economic use of available water supplies; discussing short-term variation in water demand with water distribution agency; participating in seasonal and long-term strategic planning for water distribution. Coordinating with agencies responsible for providing inputs and credit (or directly providing these services themselves). Collecting and analyzing data for monitoring production performance, with respect to equity, check and see if procedures lay special emphasis on support to smaller farmers and/or on

the dimension of techniques which are easily assimilable by smaller farmers (153)

On the question of to what extent can the quality of the performance of extension staff be attributed to: organizational structure, procedures, technical skills, motivation, resources (Man power, equipment, especially transport; finance)? It is important to bear in mind the fact that, in broad terms, most commentators would probably agree that the following are among the most important ingredients of a successful extension program:

An appropriate organizational structure within the extension service; some form of local farmer grouping which will enable information to be widely disseminated; an effective management system (with particular emphasis on work programing and monitoring); adequate resources of manpower and transport; skills in communication with farmers (not only for the transmission of advice but for the prior diagnosis of farmers' problems and needs); good two-way flow of information between extension and research station, so that the content of extension message can be closely tailored to the variety of farmers' needs') and motivation of field staff (259-260).

The above process and content of improved agricultural extension services have been found to have extremely positive effects on productivity of the farms in other countries. This paper is very optimistic that if Africa should adopt it, the issue of food scarcity that forced her to changing her eating regimen which by extension is gradually eroding her wellbeing will be put to an end.

Conclusion

Government policies in Africa does not support farmers. Giving low interest rate credits to farmers or supplying them with low

cost fertilizer, high yielding grains and stems as done in other countries is, for Africa, rhetoric in elections campaign rally ground, pages of the national dailies, radio and television stations for wining of elections. Growth in science and technology has been faster in the last fifty years. What was previously neglected or considered impossible has been achieved, thanks to the continuous effort of scientists who have continued to work assiduously. As the world rejoices that other forms of fuel are possible, and begins to produce ethanol from crops in order to minimize emissions which are dangerous to the ecosystem. If the poor farmers in Africa are duly supported, they will produce enough food not just for consumption but also the ones that can be used to produce biofuel that minimizes emissions and environmental friendly as opposed to fossil fuel which emits large quantity of carbon dioxide. Therefore, governments of the continent at all levels (Federal, States and Local Governments) must as a matter of urgency, reorder their socio-political priorities and put in place policies and implementation programs and projects that will be agriculture based to lift the nation out of the food shortage trap into which she has fallen. Agricultural extension programs should be made a compulsory course in African tertiary institutions in order to encourage African graduates to go into farming than wasting time looking for white collar jobs which are not easily come by. The continent should also re-orient the minds of her citizens on lowering their appetites towards synthetic sustenance either imported or produced from within in order to avert the widening and obscure health challenges which have characterized the nation's well-being in the recent

Bibliography

- Aleke, M., *Poor leadership in Africa: A Colonial Hangover?* In Torch Magazine, No 145 June 2013 – December 2013, pp. 24-27.
- Belly, J. R., (Ed) *British Association for Advancement Science Annual Report of Survey of Eggs, 1970*, London: Sphere Books, 1970,
- Blake, M., *Concentrated Incomplete Fertilizers*. London: Crosby Lockwood, 1967.
- Bottral, F. Anthony, *Comparative Study of the Management and Organization of Irrigation Project*, World Bank Staff Working Paper No. 458, 1981.
- Brambell, F. W. Rogers, *Report of the Technical Committee to Enquire into the Welfare of Animals Kept Under Intensive Livestock Husbandry System*, HMSO, Cmnd 2836 London: Her Majesty Stationary office 1965.
- Burkitt, D. P., and Campbell, G. D. *Research Reports Submitted to Medical Research Council London on Regional Diseases; A Comparison of Hospital Records of Western food area and those with less sophisticated ones*, London: Macmillan Press, 1957.
- Campbell G. D, and Painter, R. *Research Report Submitted to Manor House Hospital London 1962*, Britain: Tom Stacy Ltd, 1962.
- Cleave, T., and Campbell, G. D. *Diabetes, Coronary Thombosis and the Saccharine Disease*, Bristol: John Wright and Sons Ltd: 1969.
- Copper, D., *The Effect of Factory Farming on Man Himself* London: Sphere Books, 1966.
- Crawford, M. *Research Reports Submitted to Nuffield Institute of Comparative Medicine 12th December 1969*, London: Penguin Books 1969.
- Ebong, E. Ime *The War on Poverty in Nigeria* Lagos: IEA Publishing, 2011.

- Elliot, A., Research Reports Presented to Radcliff Hospital Oxford, Between: 1895 and 1905. In *Journal of the Soil Association*, Robert Waller (ed), Oxford: Charles Knight Press 1971, 127 - 131.
- Harrison, R. 'Factory Farming' in Edward Goldsmith (ed.) *Can Britain Survive?* London: Sphere Books, 1972, 115 - 126.
- Hugh, S., *Research Reports Submitted to Magdalene College Oxford*, Oxford: Oxford University Press 1967.
- Lorgan, R., *Research Paper Given to the Royal Society of Health: Medical Care Unit*, London: William Heinemann 1967.
- Nnamdi S. O., "Afrika Der Zukunft Ist Schwarz", *Africa: the Future is Bleak*. In C. Umezina (ed.) *Essay in Philosophy* Nsukka. Afro - Obis Publications Ltd 2000, 23-35.
- Robert. W., 'Decline in Nutritional Quality', In Edward Goldsmith (ed.) *Can Britain Survive?* Britain: Tom Stacy Ltd, 1971, 127 - 131.
- Sinclair, M., *Adjustment in Farming Framework, 1960's TV program*: In *Defense for Animals*, Cooper David (ed), London: Sphere Books Ltd, 1972, 117 - 125.
- Swann, M. M. *Report of the Joint Committee on the Use of Antibiotics Animal Husbandry and Veterinary Medicine*, HMSO Cmnd 4190 London: Her Majesty Stationary Office, 1969.
- The Punch*, January 30, 2001.
- Vipond, M., Some Difference in the Composition of Broiler and Free Range Chickens. In *Proceedings of Nutritional Society United Kingdom*: UK: Taylor and Francis 1964.

Chapter Twelve

ENVIRONMENT IN THE CULTURES OF WAR AND PEACE

Philip Osarobu ISANBOR

Seminary of All Saints, Uhiele-Ekpoma

Ekpoma, Edo State, Nigeria

osarobuisanbor@gmail.com

Executive Summary

The environment is the seat of all human actions and responsibilities exercised or expressed as far as the human persons remain subjects of lived experiences and agents of development. From the historical valuation of human lived experiences, both peace and war had remained the products of human actions through human and societal quests for growth, advancement and development. Both the causes of the *Culture of Peace* and the *Culture of War* are done on the valuation of the environment. Through values, the human societies live in peace just as they live in war. This is the conviction of many industrialists and multinational corporations. With this conviction, when humanity suffers; the environment continues to be at the receiving end of the products of human actions and policies. Most times, such actions lead to environmental pollutions and degradation, away from the promotion the courses of human common good and development. Hence, this essay assesses the effects of the *Culture of War* on the environment through national and international supremacy and subjugating cultures of development as against the establishment of the *Culture of Peace* that the human society should long to achieve its sustainability in order to sustain the values of the

environment and then projects the environment as our common home and heritage.

Keywords: Human Person, Conflicts, Environment, Human Actions, Culture of Peace, Development, Culture of War

Introduction

Everything the human persons as subjects of lived experiences and as agents of development do have effects on the environment that housed them. They either do so for the establishment of the *Culture of Peace* or for the enthronement of the *Culture of War* and other forms of inhumanization (cf Afolami and Isanbor 2019: 109). In fact, such effects on the environment depend on the magnitude and frequencies of human actions been expressed. When actions are spoken of, we readily talk more of the effects of the *Culture of War*. No human activities are carried out outside the environment that houses their possibilities, especially the *Culture of War*. For the existence of the environment makes every human action possible (See, Isanbor and Uzomah 2016: 57; Isanbor and Uzomah 2017: 65). From the leverage of human lived experiences, we can rationally acknowledge that both the avenues and quests for the *Culture of Peace* and the *Culture of War* are products of human actions (cf, Savage 2006: 23). They become cultures depending on the levels of interests the human persons as beings of actions and shared responsibility and as agents of development invest in establishing them in the consciousnesses and consciences of living and acting.

Despite these valuations of the indispensable nature of human civilization for its development, human existence is problematic and always in situations of struggle with the forces of development, as Wale Olajide:

The reality of human existence therefore is essentially characterised by conflict. Whatever may be perceived and characterised as peace is just a tiny fleeting transitory crack within contesting conflicts. The human existence is, *de facto*, conflict in perpetual motion. Ironically though, like it or not, it is still what defines the joy of existence. It is what makes it tick and pulsate with frenetic business of human tenure civilization. It is vitality; the elixir of human existence, its quintessence, its core.

It becomes existentially reasonable to submit to the fate of *Culture of War*, which has remained an indispensable part of human civilization due to some misguided interests and ideologies of development among nationals and groups. With the *Culture of War*, the human communities have been creating and changing the courses of histories. With such consciousness, some sociological and philosophical thinkers believe that the human society cannot obtain peaceful coexistence and positive symbiosis without some elements of wars or any other forms of conflicts. Such consciousnesses are still inherent in some contemporary humanities who are guided by the consumerist and hedonistic goals of multinational companies and corporations (See, Isanbor and Uzomah 2016: 58; 2017: 66). With this, wars and other forms of conflicts and violence become very accustomed in the minds and ways of living. The *Culture of War* becomes part of enduring civilization. Hence, there are few of these wars in our contemporary civilization that are formally undying in our minds, and which are still having ripple effects in the lives of contemporary humanities: the First and Second World Wars.

Hinged on their peculiarity, from the values of human lived experiences associated with national imperialistic quests for

territorial dominations and powers over other weaker nations, human community observed that the world has not forgotten the bombing of Japanese cities: Hiroshima and Nagasaki, precisely at 8.15am (local time) on August 6, 1945. And the world has not been elusive of the unending effects of such bombing on the environment. As such, the environment is always at the receiving end of any act of violence. Even with such consciousness, the world did not seem to have been learnt as more dangerous bombings have been witnessed in many part of same world since then (see, Iroegbu 1995: 194). It remained the most devastating bombing in the history of our scientific and technological driven world. Hence, from economic trading consciousness associated with scientific and technological innovations and creativities, some contemporary national communities are projecting the great dehumanizing bombings in the shortest future: projecting the possibility of "Third World War." This is due to the trending economic and political forces of arm-race and nuclear weapons development. Many similar events and incidents of Hiroshima and Nagasaki have been the fate of the human persons when wars and other forms of conflicts are employed as a means of development. According to Paul Oredipe (2005: 56-57):

The twentieth century also witnessed some of the most ferocious attacks and acts of barbarian and brutality against the human person, it has seen the abyss of human cruelty revealed in the horrors of the two world wars, the Holocaust and the gulags, the Cold War, endless bloody conflicts, some inimical political and social systems as well as large-scale eugenic programmes designed to eradicate ethnic, religious and cultural groups, our technology and information have been used not only to aid and develops, but also to manipulate, terrorize and control. We can now use our brilliance to create or to destroy. As the quantity and speed of information increase so do solitude and paradoxically inability to

communicate. Scientific and technological progress in our day puts into human hands possibilities which are both magnificent and frightening.

As contemporarily put, the reign of Cold War seems to be poisoning the international atmosphere through strife and conflict engineering and economies, and poisoning the national and international coexistence and interdependence through the neglects of peaceful negotiation of trade zones and dominance (De Soras 1963: 42). As contemporarily recognized, away from the economic-driven Cold Wars among technologically-driven imperialistic nations and their imposing and suppressive economic tensions, there have been political and diplomatic imposing violent conflicts across some continents, especially in the Middle East (Reidlmayer 2007: 108). These have been mostly religious initiated and then politically sustained. The trending nature of the *Culture of War* has been psychologically seated in the minds of many people in these regions, and possibly transcending their future generations, getting used to such culture of socialization and civilization. The acts for peace or war can be a culture of human psychological and creative disposition, seeing national acquisitions of modern weapons of mass destruction.

Here, the main objective of this essay is centred on the universal valuation of the human person in the faces of environmental pollution and degradation as a result of the trending of *Culture of War*. It is about environmental sustainability through the values of the human persons (cf Afolami and Isanbor 2019: 110). The social concern for the sustainability of the environment is conspicuously pronounced and universally premised on the values of the human families and on the respect for the human life and rights through the consciousness in maintaining good and healthy relationship with the environment. Hence,

methodologically, we are directed by the influences of contemporary longing and valuation of *The Culture of War* as against the embrace of the *Culture of Peace* that help in sustaining the environment for the sustenance of the same humanities. With this, humanities face the following questions to be answered:

1. Can there be development of any human society without some elements of the *Culture of War* and other forms of conflicts?
2. How can humanities outlive the greed and selfishness that are engineered by technological culture which necessarily ignite the *Cultures of War* and other forms of violence?
3. What is the fate of human generations and environment in the present age of nuclear weapon engineering, funding and high trending culture of arms race?
4. Is it not possible to value the *Culture of Peace* in order to sustain the environment as our common home and heritage?

Human Persons, Environment, and the Age of Conflict-Driven Culture

Confidently recognised, the human persons have been employing the tools of their rationality and intelligence, in most times and occasions wrongly (see, Oredipe 2005: 57). This is greatly evident in the application and employment of the products and tools of science and technology, and the wrong exhibition of moral prowess through freedom seeking culture they are advocating in every affair of human endeavour for the executions of the *Culture of War* simply for the sales of military hardware and intelligences. In instance, evaluating the applications of military technology, nuclear science and technology in the name of nuclear warfare, also biotechnological warfare, the negative results of mining and space technologies (See, Ekiugbo and Isanbor 2013: 106). These and many alike have been degrading the environment and reducing the life

expectancy of many human and non-human habitants of the earth, especially the regions where toxic chemical materials as waste or test products are disposed, or where technical testing of products are done.

On the same relatedness of relevance, culture is an aspect of what it means to be human and as a basis of human rights. Cultural encapsulation is a form of political manipulation of cultures and the aliened influences. Human beings learn their cultures through socialisation process and grow into the culture. People do not learn their cultures by heart as set of ideas and norms that are committed to memory, but are usually thought to correspond to material and non- material aspects of culture, which are resistant to changes in varying degrees. Seeing the effects of environmental degradations and pollutions dues to local, national and international conflicts in the last century, the human society cannot but assess the needs to monitor the and activities and employments of science and technology through the exercises of human creativities and innovations.

For the above existential assertions, we can easily figures the changing anthropologically driven consciousness for materialistic civilization and the enthronement of throw-away culture, and recognition that the human society is drifting heavily towards hedonistic, consumerist and relativistic culture of development (cf Afolami and Isanbor 2019: 111). But, the collective concerns for development away for the influences of the *Culture of War* are integrally humanistic, and owing that, the human society in the name and the employment of the science and technology is driven away from the very factors of development that make them more human. We are driven towards an automatic humanism rather than the embrace of godly and integral humanism. This is due to some national

mistrusts and international diplomatic failures. So, some nations threaten the *Culture of War* to put others under their diplomatic subjugation, alienation and suppression.

Just as 1997 Draft Oslo Declaration on the Human Rights to Peace (See Roche 2006: 118) stated that:

Every human being, all States and other members of the international community and all peoples have the duty to contribute to the maintenance and construction of peace, and to the prevention of armed conflicts and of violence in all its forms. It is incumbent upon them notably to favour disarmament and to oppose by all legitimate means acts of aggression and systematic, massive and flagrant violations of human rights which constitute a threat to peace.

Hence, in the hands of the United Nations Organization (UNO), there have been efforts by her in appealing to members-nations on the indispensable needs to value human life and rights through the sustainability of the environment, especially avoidance of the avenues and causes of the *Culture of War*. The organization has long recognized that all these resultants of the *Culture of War* are practically based on the contents of human actions, choices and decisions. Considering the placement of human actions in the development of the societies, the dazzling nature of *Culture of Peace* and the ever imposing of the *Culture of War* due to the currencies of national and international alliances for Nuclear Weapons and the increasing weight of arm races are based on the values the human person as a subject of lived experience, and the conception for the right to life and development. Then, UNO and other commissions of common development among nations have the sociological and psychological convictions that the *Culture of War* has resulted from the following causes of actions:

- a. *Violence Works Belief*: This is a socio-political and developmental consciousness which is centred on the conviction that true development is a product of violence and conflicts, and that there cannot be peace when there is no war or conflict to achieve it. This conviction adjudicates that violence is an indispensable part of human socialization and civilization due to the existing of conflicting ideologies and interests inherent in human nature.
- b. *Enemy Images and Mentality*: This is a part of particularist and isolationist consciousness and mentality which situate that every other self away from the influence of oneself is an enemy. As such, the human society can therefore have local or personal, national or group, and international enemies as far as development processes and policies of interests are concerned. Such consciousness is built on the foundational interests and influences of imperialism, false particularism and consumerist ideology of particularistic separatism, especially among the economical and diplomatic classified powerful nations as against the weaker nations in the name of territorial development and security.
- c. *Authoritarian Government (Based on Supremacy Culture)*: The causes of many wars and other forms of conflicts have been traced or premised to this authoritarian model of governance or government of or by some particular nations over others through some false or subjugating diplomatic tendencies and policies. It is on the conviction that some nations are either divinely made or politically powerful or supreme over others, and when the weaker nations refuse the influences of this supremacy culture, they are coarse by

- and with wars and other forms of economic and political suppression and subjugation to submit to such arrangement.
- d. *Propaganda and Secrecy* (Based on Non-Diplomatic Culture): It is based on the policy of economic dominance and control of resources of the other nations by those classified as World Powers, properly by the members of UN Security Council, who believe that some wars can be fought against the nations claimed to have possessed, acquired or developed some weapons of mass destructions, may be as a products of non-diplomatic propaganda or secrecy, for the purposes of possible threats to war and political dominance.
 - e. *Armament and Arm Race Funding*: The management and development of weapons, even those for mass destructions have been the source of political power and domination by some nations, and the funding becomes necessary for them even to the detriment to the funding and policy to fight poverty, hunger and illiteracy. This remains the source of war and other forms of conflicts, especially at an international level, as some particular nations want to have the independent right and dominance in possessing weapons of war rather than other nations, and to have more sophisticated weapons at part of their political pride and for the threats to war.
 - f. *Human Right Violation and Exploitation*: For many industrialists, development thinkers and multinational owners, there is no time or situation some particular human rights are not violated or exploited. By protecting and promoting some rights of some individuals or groups, some other individuals' and groups' rights are violated or exploited. As such no development is possible without some rights and privileges been violated or exploited. Then, war becomes very inevitable

for the causes of development, as it will lead to a greater achievement of human rights and privileges, which may be considered without the fears of rights been violated or exploited.

- g. *Exploitation of Nature* (A Neglect of Forest Rejuvenation): This is a warring belief that nature can never remain the same as created, as far as development must take place. The exploitation of nature is readily inevitable, and war and other forms of conflict help to rejuvenate it what once destroyed by it. For the same of development, no better act of rejuvenation of nature is possible than the *Culture of War*. No fears for the destruction of nature should reside in the hearts of humanity if there must be peace and meaningful development.
- h. *Patriarchy*: This is a belief or conviction that is traditionally rooted, and it conceived that the world is directed or governed by force. The world or nature is always rejuvenating or replicating itself by the acts of forces, conceiving the acts of development to be masculine in nature, and making the acts of wars and conflicts inevitable and indispensably relevant and necessary for making nature grows and develops.

Any model of development is not envisaged without indispensable effects of sustained actions on the environment. The environment houses the proposals, policies and implementations of any developmental model. Both the *Culture of Peace* and *Culture of War* are development depending on their societal values at some particular times of development (cf Afolami and Isanbor 2019: 111). They depend on the levels of human creativities and innovations, especially from the local and national political and economic contents of human intelligences, interests and desires (See, Ajai 1995: 135; Ifeakor and Eze 2019: 15). And the factors for the evaluation of the *Culture of Wars* have

been the following: Respect for Human Rights, Values of Life and Dignity; Respect for Sovereignty and Territorial Integrity; Obedience to Military Rules of Engagement; Obedience to Traditional Morality and Natural Law Principles; Respect for National and International Diplomacies, and the Consideration of Economic State Controls and Independencies.

With these factors of peace and justice, the human creativities and innovation define the society which the human persons live and have their essence structured. Through their creativities and innovations as products of their intelligence, they fashioned the nature of society for themselves, knowing that wellbeing is a product of their actions and freedom (Cf, Ajai 1995: 135; Ifeakor and Eze 2019: 15). As proof of the existence of the effects of mismanagement of human actions and freedom based on the hope and idea of better future generation, we can point to the many efforts which been made during the last few years, simply against the anarchical relationships of competition and opposition between nations, relationships organized on the basis of mutual understanding and agreement and of concerted collaboration on common tasks (See, De Soras 1963: 42). It is on this indispensable relationship between the human persons as subjects of experiences, creativity, innovations and as objects of history and socialization and the products of their actions, that the fate of the environment in the *Culture of Peace* and in the *Culture of War*, and as a seat of development and hollow of civilization is being discussed.

Disarmament, Arm Race Stoppage and Diplomatic Treaties on Proliferation of Arms

Social justice theory is a principle which is associated with the respect and regard the states of the world have given to protection and promotion of fundamental human rights of every individual (See, Isanbor and Uzomah 2016: 57; 2017: 65). It is a

vocation is a call that requires a free and responsible answer. Integral human development presupposes the responsible freedom of the individual and of peoples: no structure can guarantee this development over and above human responsibility (Benedict XVI 2009: no. 17). Social justice theory is the pavilion for the consideration of human common goodness. The demands are holistic in promoting the needed development in human society, because, without them man will not be fully forward nor have a meaningful living.

Hence, the effects of the *Culture of War* and other forms of violence on natural environment have been centred on the following: Global warming and other Greenhouse Effects (Ozone depletion and Acid Rain); Water, Land and Air Pollutions (E.g. Oil Spillage and Flaming, Mining Land sliding); Deforestation and Resource Depletion; d. Specie Loss; Force Migration, Draught, and Poverty; and the Politics of Social, Ethnic and Racial Mistrusts. Such effects of the *Culture of War* can be overcome by the consciousness of common living, that is, the consideration of the environment as our common home, hinged on the principle of social justice and the valuation of the *Culture of Peace*. The principle of social justice and the sense of the *Culture of Peace* are built on the political willing and respect of social obligation of the State toward the developmental causes for the promotion, respect and protection of human life, rights and dignity (See, Ajai 1995: 135; Ifeakor and Eze 2019: 15). Social, economic and political transformations called for, always, in the face of humanity, and she demands proper management and utility of the world's resources for her growth and development (see, Musa and Avong 2020: 108). This is reason a new world is technologically being built on the shares of commonwealth and diplomatic treaties. International Organizations such as the UNO, WLO, WHO and all its subsidiary agencies or

commissions are put at head of the global realities of all human organization in acquiring or should acquire much more relevance to sustain humankind. Through human actions and sincere responsibilities, justice becomes both the aim and the intrinsic criterion of all politics (See, Roche 2006: 118; Afolami and Isanbor 2019: 112). With the *Culture of Peace*, politics is more than a mere mechanism for defining the rules of public life: its origin and its goal are found in justice, which by its very nature has to do with ethics of living and development.

The state must inevitably face the question of how justice can be achieved here and now, and then presupposes an even more radical question: what is justice? The problem is one of practical reason; but if reason is to be exercised properly, it must undergo constant purification, since it can never be completely free of the danger of a certain ethical blindness caused by the dazzling effect of power and special interests (Benedict XVI 2009: no. 28). All these activities of progress and growth as demanded by competitive human societies seek the presence of peace and justice for their actualizations. Such development demands proper management of social relations and media, so that humanities will not be destroyed by what they feel to be freely expressed as rights. Therefore, the social justice theory is advocated for always, for humanity to desire and work toward the realization of world peace as these elements or factors of developments are put in place for the respect of human rights and dignity.

There is a common belief that under modern conditions peace cannot be assured except on the basis of an equal balance of armaments and that this factor is the probable cause of this stockpiling of armaments. Thus, if one country increases its military strength, others are immediately roused by a competitive spirit to augment their own supply of armaments

through the consciousness of the *Culture of War*. And if one country is equipped with atomic weapons, others consider themselves justified in producing such weapons themselves, equal in destructive force. This has been the cause of arm race and trading in modern society (See, Musa and Avong 2020: 109). Seeking the possible and positive approaches to security of life and properties, especially at the national and international levels of human interaction, the issues of disarmament and stoppage of arm race come to the forth. One cannot talk developmental peace and its accomplished justice without security. Development and security are inseparable, and they are highly considered together to achieve the needed human and national advancement. With these factors and condition of limitation and backwardness, armament or arm race is economic and social disasters that are designed in destroying humanity. This is because. This is because; they do not guarantee human justice and peace but threats and suppressions. The call for *Culture of Peace* as development beacons upon international bodies especially UNO for intensive in enforcing the policies of disarmament and stoppage of arm race.

Environment and the Sustainability of the *Culture of Peace*

The recognition of ecological ethics for the institutionalization of the *Culture of Peace* through proper management of the environment is based on the cultural epistemic dependence of human lived experiences and history of development (See, Isanbor and Uzomah 2016: 57; 2017: 65). Such conviction owes that actions determine the modalities of human living, and that for no individual is without the existential epistemic dependence of the other persons, dependence on the values of ecological humanism and spirituality, and vis-a-vis. With such conviction we recognize that the powers of the *Culture of Peace* are always outweighing the powers of the *Culture of War*. The existential

imports of the *Culture of Peace* as a model of integral human development are hinged on the valuation of the contents of conscience. This social conviction brings us to the valuation of truth- knowing how and what things are and expressing them as they are according to the dictates of natural law principles. It is about the sincerity of purposes and interests in the midst of conflicting demands of supremacies and diplomatic subjugations as results of human corruption, greed, pride in seeking for power, fame and wealth, sometimes, to the detriment of the otherness of living, common goodness and development.

Proper development is dependence on the valued embrace of the *Culture of Peace*, through the proper consciences for the oneness of living, locally, nationally and internationally. It is on this conviction that, Pantaleon Iroegbu (2005), in his analysis on the nexus of progress and development, explicates that “development is to a more advanced or a more highly organised state, to work out the potentialities of, to elaborate, to cause to grow or advance, to evolve, build up or construct to a greater magnificence or perfection” (p. 298). In a nutshell, the strength of any State is determined by the developmental policies and their implementations toward the betterment of the individuals of that particular State. All these are based on the value the State and the individual placed on human life and its rights. The “respect for life, and above all for the dignity of the human person, is the ultimate guiding norm for any sound economic, industrial or scientific progress” (John Paul II 1990: no. 6). The existential coordination of human affairs always infers the recognition of the placement of human rights and dignity, and it is an ethical engagement for the establishment of the *Culture of Peace* in the human society (Edema and Isanbor 2018: 40). Effectively, the issues for the respect of fundamental human rights have been, negatively, lingering factors which have been affecting their promotions and protections. They also, have

brought many outlooks on the nature of the human person, if and only if it deserves these rights which have attributed to it as human person. The human persons, out of their rationality have to recognise these natural rights, and holds tenaciously to them for the advancement of the *Culture of Peace*. It is on this situation that Douglas Roche states that:

A culture of peace is an approach to life that seeks to transform the cultural tendencies toward war and violence into a culture where dialogue, respect, and fairness govern social relations. In this way, violence can be prevented through a more tolerant common global ethics. The *culture of peace* uses education as an essential tool in fostering attitudes supportive for non-violence, cooperation, and social justice. It promotes sustainable development for all, free human rights, and equality between men and women. It requires genuine democracy and the free flow of information. It leads to disarmament (Roche 2006, 100).

On this, for many thinkers, peace remains unreal, merely an abstraction, unless it stands for an ethno-anthropological reality. But it would remain equally unreal if we do not attend to its historical dimension (See, Igwilo 2009: 10; Isanbor 2018: 124; Isanbor and Bature 2018: 59). Until quite recently the *Culture of War* could not totally destroy the *Culture of Peace*, could not penetrate all levels of development, because the continuation of the *Culture of War* was based on the survival of the subsistent cultures which fed it with the senses of greed and selfishness in the minds of owners of consumerist multinationals. Traditional warfare depended on the continuation of people's peace. Too many historians have neglected this fact; they make history appear as a tale of wars. This is clearly true of classical historians, who tend to report on the rise and fall of the powerful. Unfortunately, it is equally true for many of the newer historians

who want to act as reporters from the camps of those who never made it, who want to tell the tales of the vanquished, to evoke the images of those who have disappeared. Too often these new historians are more interested in the violence rather than the peace of the poor.

The observance of human rights presupposes the maintenance of the *Culture of Peace*. One will understand that development is what cannot be separated from human's minds and existence. It is the essence of the human person to sustain his or her *beingness*, and with this, he or she needs the enabling situation or environment which necessarily presupposes the reign of the *Culture of Peace*. As Alfred De Soras observed that:

The effective and concerted pursuits of the universal common good demands the progressive establishment of a balanced World Government as well adapted as possible to the shifting circumstances of history; it must be made increasingly effective by the constant and patient labours of construction and administration of a world-wide institutional apparatus which respects the complexity of a truly human "organised body politic" But the establishment of such as institutional apparatus, although it is a necessary condition, is not a sufficient one. It is also necessary, on a level which is no longer institutional or legal, but spiritual, that they should be an unanimous agreement of minds as possible on the recognition of true spiritual value, and as fervent an agreement of wills as possible in the pursuit of those values (p. 61).

The reign of the *Culture of Peace* or the *Culture of War* in any nation at any time or for any reason demands that the State must inevitably face the question of how justice can be achieved here and now. But this presupposes an even more radical question:

what is justice? The problem is one of practical reason; but if reason is to be exercised properly, it must undergo constant purification, since it can never be completely free of the danger of a certain ethical blindness caused by the dazzling effects of of the *Culture of War* and its special interests. With the consciousness of the *Culture of Peace* rather than the *Culture of War*, our environment becomes a common home for all rather than a theatre of fears and anxiety for common alienation and possible extinction. Indeed, the level of human rights performance serves as an important index for any model of development should help the human persons to sustain this consciousness through the valuations of common good and solidarity of integral purposes for the sustainability of the created order.

Conclusion

In all, the various perspectives of the essay consider the effects of advanced technologies and technicalities of modern warfare and their inherent economic and political values, ideologies and interests, and the longing for the embraces of the *Culture of Peace* for the sustainability of the environment. We recognized that the environment remains very unsafe for living with the intending fears and anxieties for possible escalation of “Third World War” with the presences of Nuclear Weapons and the endemic natures of their proliferations and acquisitions the hands of many powerful and war-driven nations and terrorist groups. We observed that, in peace or in war, the environment is always to the receiving end of the effects of all human actions, positively or negatively. It is on this that Paul VI (1975) comments on the nature of the humanity and its challenges, which appear impossible to avert, and he says:

But we all know that it is not just men that change on the stage of history. Things change too. This is to say, the questions on the balanced solution of which depends

men's peaceful life together in society. No one can maintain that the organization of civil society and of the international context is perfect. Many, very many problems still remain potentially open. The problems of yesterday remain; the problems of today are arising; tomorrow others will arise. And they are all awaiting a solution. This solution, we declare, cannot and must not ever again spring from selfish and violent conflicts, still less from murderous wars between men.

Therefore, it demands that we must long for the *Culture of Peace* in order to sustain the environment for human safety and wellbeing. For, through the applications of the tools of science and technology, the environment is greatly endemic, especially before, during and after wars' engineering, executions and resolutions. In most cases, such actions lead to the endangerment and possible extinctions of some living species during the climatic pollution and degradation (Cf, Isanbor and Uzomah 2016: 60; 2017: 68). Hence, we live a global village though the application of science and technology, but with the same possibility of global alienation or extinction due to the simplistic or easy efficiencies of nuclear weapons and engineering. Away from this consciousness, we should desire to save and sustain the environment globally, revaluing the courses of the otherness of living and development, and relentlessly the attainment and the sustainability of the *Culture of Peace* through the projection of the environment as our common home and heritage.

Works Cited

- Afolami, E. A. and Isanbor, P. O. (2019). Ethics, environment, and the questions of anthropological cultures and challenges. *Albertine Journal of Philosophy and Related Disciplines*, 3: 107-114.
- Ajai, W. (1995). Achieving environmental protection through the vehicle of human rights: some conceptual, legal and third world problems. *University of Benin Law Journal*, 2(1): 134-145.
- Benedict XVI (2009). *Caritas in veritate*. Social encyclical on the attainment of the authentic human development in charity in truth. Vatican City: Libreria Editrice Vaticana.
- De Soras, A. (1963). *International morality*. New York: Hawthorn Books.
- Edema, P. A. and Isanbor, P. O. (2018). Philosophical conception of man: its contemporary African analysis. In M. A. Izibili, P. O. Isanbor and S. U. Attoh (eds.). *Studies in philosophy and society*. Vol. 1. (pp. 39-65). Kagoma: Albertine Institute.
- Ekiugbo, E. U. and Isanbor, P. O. (2013). Peace education and its place in human sociological development. *Journal of Research in Education and Society*, 4(1): 100-107.
- Ifeakor, C. S. and Eze, R. C. (2019). Choosing between environmental conservation and development: an African perspective. *Journal of African Studies and Sustainable Development*, 2(8): 11-24.
- Igwilo, M. (2009). Environmental ethics: human condition and the search for sustainable development in Africa. *Enwisdomization Journal*, 4: 1-15.
- Iroegbu, P. (2005). "Ethics of progress and development" In P. Iroegbu and A. Echekwube (eds). *Kpim of morality: ethics*, (pp. 289-303). Ibadan: Heinemann Educational Books.

- Isanbor, P. O. (2018). Morality against environmental degradation: a review for sustainable development. *Scientia: Plasu Journal of General Studies*, 1(1): 119-126.
- Isanbor, P. O. and Bature, A. I. (2018). Morality, integral ecology and development in Francis' laudato si: a review. *Philectics: Benin Journal of Philosophy*, 1(2): 56-63.
- Isanbor, P. O. and Uzomah, M. M. (2016). Douglas Roche on cultures of war and Peace: the global ethics for human rights, social order and development. *EPHA: Ekpoma Journal of Religious Studies*, 11(1&2): 76-104.
- Isanbor, P. O. and Uzomah, M. M. (2017). Natural law philosophy and the quest for social order, justice and development. *Akungba Journal of Religion and African Culture*, 5(2): 62-72.
- John Paul II (1990). *Message for world day of peace*. Vatican City: Libreria Editrice Vaticana.
- Musa, C. M. and Avong, J. K. (2020). Environmental education: an exigency for climate change mitigation and adaptation. *Gidan-Waya Journal of Education*, 2(1): 101-114.
- Nwasi, J. (2008). An appraisal of the environmental impact assessment as a device for sustainable development in Nigeria. *Igbinedion University Law Journal*, 6: 193-214.
- Olajide, W. (2018). "Peace as conflict: the eternal catalyst and elixir of human existence." *The Guardian*, Monday, March 5, 2018.
- Omojola, M. (2011). The imperative for continued transmission of necessary values for a stable society in Nigeria: analysis of Matthew 28:20a. *Enwisdomization Journal*, Vol. 5, No. 1, pp. 1-12.
- Oredipe, P. (2005). Integral humanism: an ethical challenge on faith and reason. In Iroegbu P. and Echekwube, A. (eds.). *Kpim of morality: ethics*. Ibadan: Heinemann Educational Books.

- Paul VI (1975). *Message for world day of peace*. Vatican City: Libreria Editrice Vaticana.
- Prete Del, V. (2011). "The new era of humanity." In Pontifical Mission Union. *Studies for the Mission*. 2011 Edition.
- Reidlmayer, A. J. (2007). Crimes of war, crimes of peace: destruction of libraries during and after the Balkan wars of the 1990s. *Library Trends*, 56(1): 107-132.
- Roche, D. (2006). *The human right to peace*. Mumbai: Better Yourself Books.
- Savage, A. (2006). *Ecological Philosophy and Christian Theology*, UK: Trafford Publication.

Chapter Thirteen

AFRICAN ECOLOGICAL CRISIS AND EDUCATION

Jude I. Onebunne, PhD

Department of Philosophy

Nnamdi Azikiwe University, Awka

juno.anyi@gmail.com

&

Success Okechukwu

Department of Library and Information Science

Nnamdi Azikiwe University, Awka

Executive Summary

The world is on the brink of an unprecedented growth-related ecological crisis that threaten the sustainability of humanity and the society. An ecological crisis occurs when changes to the environment of a species or population destabilizes its continued survival and existence. Man engages in different activities to the detriment of his environment which in return endangers his life. Unfortunately, man lacks awareness and knowledge of his environment. Using the method of critical analysis, the researchers discover that the major factors of ecological crisis include: pollution of air, land and water through excessive deforestation, industrialization, anthropogenic climate change i.e. global warming etc. Therefore, there is need to educate the people about its causes, consequences and prevention to avoid further destruction. Secondly, its education will help encourage people to use energy and water more efficiently and recycle household waste. Lastly there should be inclusion of ecological crisis and environmental education into the curriculum of the school system.

Keywords: Education, Environment, Ecological crisis, Environmental education

Introduction

The current and accelerating scale with which the global ecological crisis rises has resulted in species extinction, global warming and ocean acidification to climate change, radically threatening life on this planet. There is a crisis and we are the cause. Mankind has fallen into a mess of global problems (into a global ecological crisis) which endanger not only its welfare, peace, and development but its survival and mere existence as well. The Earth was created and beautified for man to live comfortably and enjoy nature.

Unfortunately, the activities of man in his environment has severally affected and endangered him. The increase in different technologies and inventions has its own contribution to the ecology. Global warming has already had observable effects on the environment, such as shrinking glaciers, earlier break up of ice on rivers and lakes, increased droughts, intensifying extreme weather and plant and animal ranges shifting, output of the sun to the effects of volcanoes. Without effective action to halt the burning of fossil fuels and reduce the levels of greenhouse gases released by human activity, humans and wildlife worldwide face an unwelcoming future. There will be increased disruptions to society from extreme weather, with more frequent flooding and storms, more severe droughts and heat waves, rising sea levels and warming permafrost. In many regions, the effects of water shortages and extreme heat will adversely affect agriculture and the effects on the natural world will be severe with a major loss of coral reefs as oceans warm and to tropical forests as fires become more frequent. These impacts will also be felt enormously in economic terms. The cost of doing nothing and continuing our trends will severely oppress world. So many

people lack knowledge about their activities and its irreversible effects on man and his future generations. Again, ecological crisis has resulted in rampant death, resulting to different diseases and health issues (Ajayi, P.O.S., 1998).

Therefore, it is very important that man is educated and enlightened about the consequences of his activities as well as possible means to checkmate and solve the current ecological and environmental problems, for if we do not change many of our destructive ways, the changes will rapidly, destructively and without discrimination be forced upon us by a degraded, unstable biosphere. We should empower our minds to the challenges our society and natural world face and discover the actions we can take today for a better tomorrow.

Causes/Factors of Ecological Crisis

According to Boyes, E., and Stanisstreet, M. (2011) these are the factors that contributed to ecological and environmental crisis and they include:

Environmental causes of ecological crisis include:

Overpopulation

We are facing a shortage of resources such as food, water and fuel to sustain the rising global population, particularly in developing countries. Intensive agriculture attempting to lessen the problem actually leads to more damage through the use of chemical fertilizers, pesticides and insecticides. Overpopulation (global population explosion) has a central role, since more people have a larger ecological footprint, consume more, pollute more, occupy more space from natural ecosystems, and emit more carbon dioxide through their activities. Overpopulation directly intensifies global climate change, global biodiversity crisis, deterioration of the global state of the environment, and

urbanization and reduces the extension of rain forests and natural habitats as well as the nonrenewable energy sources (fossil fuels, natural building materials, stock of water).

Pollution

Pollution of the air, water and soil caused by toxins such as plastics, heavy metals and nitrates, caused by factors such as toxins and gases released by factories, combustion of fossil fuels, acid rain, oil spill and industrial waste.

Global warming

Global warming is driven by human-induced emissions of greenhouse gases and the resulting large-scale shifts in weather patterns. Though there have been previous periods of climatic change, since the mid-20th century humans have had an unprecedented impact on Earth's climate system and caused change on a global scale. The largest driver of warming is the emission of gases that create a greenhouse effect, of which more than 90% are carbon dioxide (CO₂) and methane. Fossil fuel burning (coal, oil, and natural gas) for energy consumption is the main source of these emissions, with additional contributions from agriculture, deforestation, and manufacturing. The human cause of climate change is not disputed by any scientific body of national or international standing. Temperature rise is accelerated or tempered by climate feedbacks, such as loss of sunlight-reflecting snow and ice cover, increased water vapour (a greenhouse gas itself), and changes to land and ocean carbon sinks. (Palmer, L.,2010)

Waste disposal

An excessive amount of waste is produced and dumped in the oceans. Nuclear waste is particularly dangerous, as well as plastics and electronic waste.

Ocean acidification

The increase in the production of carbon dioxide by humans causes the oceans' acidity to rise, which has a negative impact on marine life.

Deforestation

Loss of trees in order to make space for residential, industrial or commercial projects means that less oxygen is produced, and temperature and rainfall are affected. Man constantly cut trees either for firewood, or to build houses or factories, not minding its effects to Wildlife. This has resulted in extinction of some species of animals. It has been estimated that around half of the world's mature forests have been cleared by humans. According to Saylan, C. (2011), deforestation occurs for a variety of reasons, but the majority of deforestation now occurs when tropical forests are cleared for agriculture and pastoralism; other reasons include the destruction of trees for charcoal production and the selective logging of forests for timber. Whilst tropical forests cover only around 6% of the earth's surface, they are an essential part of the global ecosystem and of the biosphere: they help to regulate climate; they protect soils from erosion; and they provide habitats for a vast number of plant and animal species. One estimate suggests that around 90% of the world's species are found in tropical forests (Park 2001).

Non-environmental causes of ecological crisis include:

Urbanization

The issue of urbanization is indirectly related to that of population growth, since urbanization is occurring in response to increasing population pressures in rural areas and to the increasing concentration of economic opportunities in cities - often in so-called 'megacities' (cities with populations exceeding 10 million people). Urbanization is often associated with a range

of social and environmental problems including overcrowding, congestion, pollution, public health issues, shortages of water for drinking, and inadequate sanitation. Urbanization is also related to another issue: the decline of rural communities.

Poverty

Whilst poverty is complex and problematic to define, the persistence of poverty at all levels (from intra-household to global) represents an ongoing challenge, as acknowledged in most current development policies, initiatives and targets (such as the United Nations Millennium Development Goals (UNDP undated)). Vast differences in patterns of income, production and consumption are evident at all spatial scales, and those patterns are reflected in distinctive patterns of environmental impact (although in some cases environmental impacts are 'exported', as in the case of radioactive waste that is generated in one country before being transported to another for processing or disposal).

Food insecurity

In general, the rate of increase in total food production has exceeded that of total population growth over recent decades, mainly due to improvements in agricultural practices and in water management techniques. However, the average values conceal enormous differences in the distribution and quality of food, and the lack of food security remains a profound challenge in many parts of the world. Debates about food production raise important environmental issues such as the use of genetically modified (GM) and genetically engineered (GE) seeds and produce (Kanu and Imatiri 2019abc).

Disease

Closely related to issues of poverty and food insecurity are problems of disease due to malnutrition, scarcity of water for

drinking, poor sanitation, pollution, and inadequate shelter; those are often compounded by the spread of infectious diseases such as malaria, cholera, tuberculosis and small pox. Large differences occur in the responses of human societies to diseases, reflecting vast inequalities in health care spending and in funding for pharmaceutical and medical research.

Peak oil and energy security

Peak oil refers to the time at which maximum crude oil extraction occurs, after which the economically viable reserves become depleted and the rate of oil extraction declines. Some estimates suggest that peak oil will occur - or has already occurred - early in the 21st century, with the implication that alternative energy sources will need to be developed in sufficient time to serve as a substitute for oil. Regardless of the accuracy of predictions about peak oil, the issues of climate change and conflict respectively, are now driving debates about 'green' (decarbonised or renewable) energy sources and energy security.

Conflict and displacement

Conflicts between human societies continue to create severe environmental degradation in addition to human misery and a wide range of social impacts. For instance, the use of depleted uranium munitions causes significant land contamination, whilst the effects of the displacement of large numbers of people from zones of conflict can exert pressures on adjacent ecosystems. Displacement of people does not occur only in response to violence; globally, the effects of climate change are projected to result in the displacement of as many as 500 million environmental refugees.

Natural disasters

Whilst not necessarily part of the environmental crisis, human populations are also faced with ongoing threats due to the occurrence of natural disasters such as earthquakes, landslides, floods, tsunamis and wildfires. Yet whilst these hazards may be natural in origin, it is important to acknowledge that human vulnerability to natural disasters is generally increasing, not least because human populations and settlements are growing in many marginal and dangerous areas, such as floodplains. Hence unsustainable practices - such as the construction of settlements on floodplains, or the intensive cultivation of marginal hill slope lands - may greatly increase the impacts of natural disasters on human societies and economies. (Brade, G. ,2009)

Effects of Ecological Crisis to Mankind

Some of the possible consequences of these effects include:

Ozone layer depletion

The ozone layer or ozone shield is a region of Earth's stratosphere that absorbs most of the Sun's ultraviolet radiation. It contains a high concentration of ozone (O₃) in relation to other parts of the atmosphere, although still small in relation to other gases in the stratosphere. The ozone layer can be depleted by free radical catalysts, including nitric oxide (NO), nitrous oxide (N₂O), hydroxyl (OH), atomic chlorine (Cl), and atomic bromine (Br). While there are natural sources for all of these species, the concentrations of chlorine and bromine increased markedly in recent decades because of the release of large quantities of man-made organohalogen compounds, especially chlorofluorocarbons (CFCs) and bromofluorocarbons. These highly stable compounds are capable of surviving the rise to the stratosphere, where Cl and Br radicals are liberated by the action of ultraviolet light. Each radical is then free to initiate and catalyze a chain reaction capable of breaking down over 100,000

ozone molecules. By 2009, nitrous oxide was the largest ozone-depleting substance (ODS) emitted through human activities. The breakdown of ozone in the stratosphere results in reduced absorption of ultraviolet radiation.

Nuclear meltdown

A nuclear meltdown (core meltdown, core melt accident, meltdown or partial core melt) is a severe nuclear reactor accident that results in core damage from overheating. The term nuclear meltdown is not officially defined by the International Atomic Energy Agency or by the United States Nuclear Regulatory Commission. It has been defined to mean the accidental melting of the core of a nuclear reactor, however, and is in common usage a reference to the core's either complete or partial collapse. The nuclear meltdown at Chernobyl in 1986 caused the death of many people and animals from cancer, and caused mutations in a large number of animals and people. The area around the plant is now abandoned by humans because of the large amount of radiation generated by the meltdown. Twenty years after the accident, the animals have returned.

Climate change

According to Pidwimy, M. (2006), Climate change is starting to have major impacts on ecosystems. With global temperature rising, there is a decrease in snow-fall, and sea levels are rising. Ecosystems will change or evolve to cope with the increase in temperature. Consequently, many species are being driven out of their habitats. Climate change has adversely affected both terrestrial and marine ecosystems, and is expected to further affect many ecosystems, including tundra, mangroves, coral reefs, and caves. Increasing global temperature, more frequent occurrence of extreme weather, and rising sea level are among

some of the effects of climate change that will have the most significant impact (Hansen, J., et al., 2013; Kanu et al 2020).

Biodiversity extinction

Biodiversity loss includes the extinction of species worldwide, as well as the local reduction or loss of species in a certain habitat, resulting in a loss of biological diversity. The latter phenomenon can be temporary or permanent, depending on whether the environmental degradation that leads to the loss is reversible through ecological restoration/ecological resilience or effectively permanent (e.g. through land loss). Global extinction is being driven by human activities which overreach beyond the planetary boundaries as part of the Anthropocene and has so far been proven to be irreversible.

Degraded air quality

Other forms of air pollution are also significant, particularly at regional and local scales, as they may seriously degrade air quality; worldwide, approximately one billion people inhabit areas - mainly industrial cities - where unhealthy levels of air pollution occur. Many air pollutants are responsible for the degradation of air quality, but some key pollutants include particulate matter (such as soot), tropospheric ozone, oxides of nitrogen, oxides of sulphur, lead and various aromatic compounds (such as benzene). Many air pollutants may cause or aggravate respiratory and cardiovascular illnesses; some are known carcinogens; and some can cause damage to vegetation and, in turn, produce a range of ecological effects.

Degraded water quality

Similarly, water quality can be seriously degraded by contamination with pollutants, giving rise to a range of health-related and ecological effects (such as the degradation of coral reefs). A major source of water pollution is the terrestrial run-off

to inshore waters that occurs in many coastal locations; such runoff may contain significantly elevated levels of nitrogen and phosphorus from agricultural land and from human settlements. Many other human activities lead to water pollution, including mining and industrial processes, which may create toxic effluent. Oil spills, accumulation of plastics and the bioaccumulation of persistent organic chemicals are some of the other causes of serious degradation of the marine environment.

Acid rain

Pollutants in the atmosphere such as sulfur dioxide and nitrogen oxides cause acid rain, which has negative consequences for humans, wildlife and aquatic species.

Scarcity of fresh water

Besides the pollution of freshwater sources, there are a variety of other reasons for the scarcity of fresh water for drinking in many parts of the world - many of which are related to poor water resource management practices. For instance, the over-abstraction of water from rivers results in water shortages and problems of salinisation of downstream. Irrigation practices may also be responsible for the depletion of local water sources and the salinisation of irrigated land. Vast differences in water security exist at the global scale, reflecting both demand for fresh water and the scale of public and private investment in water supplies, treatment and distribution.

Land contamination

Land contamination occurs as a result of chemical or radioactive pollution, especially by long-lived (persistent) chemical species that enter the soil. Land contamination may cause profound ecological effects and it presents severe constraints to development, since contaminated land must typically be

rehabilitated before it is safe to use for agriculture, construction or recreation.

Soil erosion and degradation

Concerns about soil erosion, soil degradation and the problem of desertification have become acute. In part, these concerns are based on the historical experiences of dramatic soil erosion and transport in New World countries including the USA (during the 'Dust Bowl' of the 1930s) and Australia. Whilst analyses of the problems of soil erosion and degradation have become more sophisticated, recently, it is clear that these problems continue to have important consequences for agricultural and pastoral productivity as well as for the functioning of natural ecosystems.

Land use change and habitat loss

These issues overlap with others, such as deforestation, but they are broader and include the clearance of forest for agriculture and pastoralism, the transformation of land during urban growth, the development of new infrastructure (such as roads), the drainage of wetlands, and the destruction and removal of coastal mangrove forest.

Volcanic eruptions such as Mount St. Helens and the Tunguska and other impact events and earthquakes caused by incessant noise from industries etc.

Prevention of Ecological and Environmental Issues According Tochwala, L. (1999)

Recycle (& then recycle properly)

- Implementing recycling habits into your daily life is one of the most effective ways to help lessen landfill waste, conserve natural resources, save habitats, reduce pollution, cut down on energy consumption, and slow down global warming.

Conserve water & electricity

The tips you see below will seem like no-brainers; however, it takes to become more aware of your unconscious habits:

- Turn the sink water off when brushing your teeth
- Water the lawn in the morning or evening; cooler air causes less evaporation
- Switch off anything that uses electricity when not in use (lights, televisions, computers, printers, etc.)
- Unplug devices when possible; even when an appliance is turned off, it may still use power
- Remove chemicals inside of the house; research companies that use plant-derived ingredients for their household cleaning products
- Remove chemicals outside of the house; use eco-friendly pesticides and herbicides that won't contaminate groundwater
- Consider signing up for a renewable energy producer that uses 100% renewable energy to power homes.
- Volunteer. Volunteer for cleanups in your community. You can get involved in protecting your watershed, too.
- Educate. You can help others understand the importance and value of our natural resources. Public enlightenment is ongoing on the major preventive measures. Knowledge illuminates light into the ignorance of the people.
- Conserve water. The less water you use, the less runoff and wastewater that eventually end up in the ocean.
- Shop wisely. Buy less plastic and bring a reusable shopping bag.
- Use long-lasting light bulbs. Energy efficient light bulbs reduce greenhouse gas emissions. Also flip the light switch off when you leave the room!

- Plant a tree. Trees provide food and oxygen. They help save energy, clean the air, and help combat climate change. Afforestation is also a solution.
- Don't send chemicals into our waterways. Choose non-toxic chemicals in the home and office.
- The development of theories about environmental problems that will help to checkmate human activities (Orr, D.,2010)

Impact of Education to Ecological Crisis

Environmental degradation and climate change have been caused by the unsustainable patterns of human behaviour as they are linked to consumption. Most efforts to improve environmental sustainability involve international cooperation, legal restrictions, and technological developments, rather than behaviour.

Therefore, according to Onuoha, B. C.(2012), Environmental Education is seen as a process of infusing into the educational system environmental content in order to enhance the awareness of the people on environmental issues at all levels of education. This encourages students to research, investigate how and why things happen, and make their own decisions about complex environmental issues.

Education helps to expose students to nature and allowing them to learn and play outside. It fosters sensitivity, appreciation, and respect for the environment. Environmental Education serves as tool to build sustainable behaviour in the society. Quality education for sustainable development is a crucial antecedent tool to create a generation of people whose behaviour is constructed by environmentally sustainable habits.

Environmental education should “foster attitudes, motivations and commitments to make informed decisions and take responsible actions”. It helps social groups and individuals acquire an awareness and sensitivity to the total environment and its allied problems. Education also helps social groups and individuals acquire a set of values and feelings of concern for the environment and the motivation for actively participating in environmental improvement and protection. (Stewart, J. H.,2005)

Conclusion

Human activity has put a strain on the natural resources and posed a threat to the ability of the planet’s ecosystems to sustain future generations. Protecting and improving our future well-being requires wiser and less destructive use of natural assets. Therefore, the protection of our natural resources should be our sole responsibility. Education helps to better equip future generations to address current and future challenges. It plays an important role in bringing about the political and economic transformation necessary to create ecologically sustainable societies. Education shapes values and perspectives, and helps develop abilities, concepts and tools that can be used to critically reflect upon current lifestyles and identify political, social and ecological courses of action.

References

- Ajayi, P.O.S. (1998). Comprehensive geography for secondary schools.
- BBC News-15th April,2013. "Family and Education". www.bbc.c.o.uk/news/education-22158941 Retrieved on 4th August, 2015.
- Boyes, E., & Stanisstreet, M. (2011). "Environmental education for behaviour change: which actions should be targeted?" International Journal of Science Education.
- Brade, G. (2009). "Climate change". www.nnv/.noaa.gov/cgi-bin/index.cg? Retrieved on 6th June, 2015.
- Chawla, L. (1999). Life paths into effective environmental action, The Journal of Environmental Education, 31(1), and; Pease, J. et.al. (1997). Why landowners restore wetlands: A national survey. Iowa State University: University Extension, Ames, Iowa.
- Hansen, J., et al. (2013, December 3). Assessing 'dangerous climate change': Required reduction of carbon emissions to protect young people, future generations and nature. PLOS ONE. Retrieved from <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081648>.
- Kanu, A. I; Omojola, I. O.; Bazza, M. B. (2020). Climate Change and Migration: Drawing the Lines and Making the Connections. *Villanova Journal of Arts, Humanities and Social Sciences* Vol. 2. No. 1. pp. 10-14.
- Kanu, I. A. and E. P. O. Imatari (2019). Food Security in Arid and Semi-Arid Lands in Africa. *Journal of African Studies and Sustainable Development*. Vol. 2. No. 8. pp. 50-83.
- Kanu, I. A. and E. P. O. Imatari (2019). The Question of Food Security in Arid and Semi-Arid Lands in Africa: Indigenous Knowledge and Implementers of

- Development. *Journal of African Studies and Sustainable Development*. Vol. 2. No. 8. pp. 190-200.
- Kanu, I. A. and E. P. O. Imatari (2019). Gender Rights, Climate Change and Food Security in Africa. *Nnadiabube Journal of Religion, Culture and Society*. Vol. 1. No. 2. pp. 80-86.
- Onuoha, B. C. (2012). Business and Entrepreneurial Environments: A Nigerian Perspective. Port Harcourt: African Entrepreneurship Initiative.
- Orr, D. (2010). "Earth in Mind" in "Should environmental education be taught in school". Clarkbeast.wordpress.com/2010/11/05. Retrieved on 31st May, 2015. *Oxford Journals Science and Mathematics. Bioscience* vol.51, Issue 4. Pp. 283-288.
- Palmer, L.(2010). "Public schools' global warming teaching: A rich field for mining for news stories'. Retrieved from www.yaleclimatemediaforum.org on 17th June ,2015.
- Pidwimy, M. (2006). "Causes of Climate Change" In *Fundamentals of Physical Geography*, second edition ([http/ www.physicalgeography.net/fundamentals/7y.html](http://www.physicalgeography.net/fundamentals/7y.html)). Retrieved on 17th April, 2015
- Saylan, C. (2011). "Green failure: what is wrong with Environment Education..." Retrieved from ([e360yale.edu/ .../2407/](http://e360yale.edu/.../2407/)).
- Stewart, J. H. (2005). "Challenges for Environmental Education: Issues and for the 21st Century". ([Bioscience oxford journals.org/com](http://Bioscience.oxfordjournals.org/com)). Retrieved on 30th June, 2015. Wikipedia "what is Environmental Education". en.wikipedia.org/wiki/Environment... Retrieved on 10th August, 2015.

Chapter Fourteen

ARMER-HERDER ECOLOGICAL CRISIS IN NIGERIA VIS-À-VIS GABRIEL MARCEL'S INTERSUBJECTIVE PHILOSOPHY

Justin C. Anyarogbu
Bigard Memorial Seminary, Enugu
Enugu State
jusmarian87@gmail.com

Executive Summary

The article reflects on the perennial Farmer-Herder crisis in Nigeria that has become bloodier in recent times. It acknowledges the many material and non-material efforts made by government and other concerned individuals, bodies or organizations to check the crisis. It also acknowledges that these efforts haven't yielded significant fruits toward resolving the crisis, hence the present spread of the crisis across all the regions of the country, not just the North Central as it were in the past. Contrary to the ecological and climatic factors fingered as the causes of the crisis, the article identifies the loss of respect for human dignity and equality of all human persons as the fundamental cause. It argues that proper attention has not been given to restoring these values among farmers and herders, and this is the reason why all measures put in place to curb the crisis have been futile. Through an analysis of Gabriel Marcel's dialogical philosophy, the article demonstrates how the lack of these vital virtues has led to the worsening farmer-herder crisis in Nigeria. It concluded, therefore, that more efforts should be geared towards re-inculcating these values among herders and

farmers, and by extension, among all Nigerians. Until this is achieved, the end to the crisis may never be in sight.

Keywords: Crisis, Dialogue, Ecology, Farmer, Herder, Intersubjectivism.

Introduction

Since the present democratic era, one of the most gruesome ills that has plagued Nigeria and defied all attempts at resolution is the farmer-herder crisis. The crisis has even degenerated and taken a more devilish incline assuming the form of banditry and kidnap. A great many factors contribute to this perennial disturbance. These factors which are also of historical relevance are tinted with ethnic, religious, political and even selfish colouration. Of course, the clashes have become more violent and bloody in recent times due to an increasing political bias.

Politically, pre-independent administrative system imposed on Nigeria by the British colonialists continues to have effects, albeit more negatively, on the country. Under the auspices of Britain, Nigeria was broken into three regions with different administrative systems. Gursoy rightly observes that British colonial administration divided the land into three administrative parts as North, East and West. The coastal regions and whole Eastern and Western protectorates were under direct rule of British, while the Northern region was ruled indirectly by British through Nigerian traditional governors. Therefore, the Northern region had its different rules and regulations than other regions (4). This pre-independence administrative structure is the bane of the regional inequality and political instability being experienced in Nigeria today because it gave the North excessive privileges that armed her with more political power. After the independence in 1960, the administrative regions of the country were further divided into smaller ones

until it reached 36 states (Penrose, Jean-Paul, Bdliya, & Chettleborough 44). This did not in anyway undo the political advantage of the North because the North even with the creation of states remained the majority as she has more federating units and senatorial zones, and hence more parliamentary representative than the South. This political advantage is apparently one of the factors engineering the Fulani onslaught on farmers because the group feels protected by the Northern or even Fulani elites who command so much political power in Nigeria.

Being a very densely populated country with an extensive land mass, Nigeria is blessed with different climates in her different regions. She has arid, semi-arid, sub-humid and humid zones, which all allow different kinds of lifestyles and means of living (Gursoy 4). Climatic condition and land arability are significant factors among Nigerians, since around 70% of the population constitutes locals who engage in plant and animal husbandry (International Crisis Group 12). Of course, since the discovery of oil, the leaders abandoned the huge potentiality and benefits the country enjoyed from agricultural products and exports. This explains the dearth in agricultural management, the gravest effect of which is felt in the intergenerational herder-farmer clashes experienced in Nigeria today.

This article seeks a philosophical solution to this perennial crisis since a lot of the efforts made by government and non-governmental forces to halt the crisis have proven abortive. Effort is made to present Gabriel Marcel's ethic of interrelations founded on his philosophy of intersubjectivism as a means of repairing the almost irreparable relationship between the herders and farmers. The article is convinced that although there

are ecological lapses fueling the crisis, if the farmers and herders are made to understand that they share the same dignity as persons and very similar business orientations as persons into plant and animal husbandry, both groups would be able to swallow their grievances and find friendly ways to manage the scarce resources that has primarily instigated the crisis.

Ecological Crisis Fuelling Farmer-Herder Crisis

Ecological crisis refers to crisis resulting from changes to the environment of a specie or population which threatens the continuous existence of the organisms within the environment. Some factors that may lead to ecological crisis include: degradation of an abiotic ecological factor (like increase of temperature, less significant rainfall, etc); increased pressure from predation; increase in population (overpopulation). In the case of the farmer-herder crisis the undermining environmental factors that has brought about the ecological crisis is climate change and increase in population in relation to land use, water and irrigation needs.

There are so many causative factors for the unending farmer-herder crisis in Nigeria. Some of these factors are man-made, others are imposed by nature. Some are politically instigated; some are influenced by religious and ethnic predispositions. However, no matter the nature of the causative factor, the crisis revolves around control over farming, grazing land and water (Omawumi par. 14). The factors fuelling the crisis are therefore considered to be primarily ecological in nature. Farmers claim ownership of land and water because such are founded in their ancestral home. Herders claim right of use for water and grazing lands because they believe such are God's gift to all, and to none specifically. Conroy rightly notes that the Fulani view land as a common resource which cannot be personalized, while the sedentary communities usually treat land as their exclusive

preserve which no other community should encroach into (12). Adeleke notes further that farmers accuse herders of damaging their crops by failing to control their animals while the herdsmen equally claimed that the farming communities steal their cattle (38). Ahmed-Gamgum observes that in recent times, illegal invasion of farmland has led to severe conflicts between them due to the harm they have caused to crops and fallow land left to replenish nutrients after long years of use (34). Alozie buttresses that sometimes the herdsmen's cows wander into the farmland of the farmers without permission and kill crop nurseries or full-grown crops, which they hope will be harvested and sold. This kind of behaviour makes farmers to go after their animals, showing that the reduction in ecological space and resorts creates an environment of eco-scarcity that increases the stakes and places a premium on the resources available (43). This leads to rather fierce competition and a desperate struggle for subsistence. Therefore, conflict becomes not only inevitable; it literally becomes a question of survival (Oghuvbu & Oghuvbu 702).

There are some other causative factors leading to farmer-herder crisis revolving around the struggle for control over water, farming and grazing lands. They include; climate change, breakdown in herder-farmer dialogical relations, expansion in plant husbandry, and bad governance. They are discussed briefly below.

Climate Change

Climate change is one of the natural factors fuelling the crisis. Gleick notes that "Climate change has been tipped as the biggest single factor in causing migration and relocation of the population" (336). Nigeria's northern regions face desertification

problem which affects the livelihoods of many people (Okeke 73). The amount of rain decreases every year. In the last 30 years, the rain season decreased from 150 days per year to 120 days. According to United Nations, the area which turned into desert or semi-desert in the past sixty years is around 350,000 square kilometer in Nigeria (Gursoy 8). The desertification continues towards southern parts of the country with the speed of 600 meters each year (Shehu 359). The effects of drought and desertification are vital for the people who earn their living from the soil itself. Water resources and grazing lands decreased in northern parts of the country, which drifted the grazing routes of herders into more southern areas. Similarly, the farmers look for new lands to cultivate as they lost some of theirs because of climate change. This naturally leads to clashes between the herders and farmers as both groups jostle for scarce land for grazing and farming respectively.

Expansion in both Plant and Animal Husbandry

Oghuvbu & Oghuvbu observe that expansion in farm production caused by encroachment of pastureland by farmers is also responsible for the aggravating conflict. Initially not cultivated land was regarded as a potential pastureland. With the expansion in agriculture, the available pastureland has narrowed down thereby compelling the pastoralists to encroach into farmlands that were not supposed to be theirs (702). Clara buttresses that where these basic needs of livelihoods of the pastoralists are not met either because of expanding land cultivation or desert encroachment, the pastoralists tend to move to some other places where they can have access to pastures (69). However, where they constitute more pressure to the available land resource, their presence is not always welcomed. This has been found to result into conflict with the settled people of the community (Oghuvbu & Oghuvbu 702).

Breakdown in Herder-Farmer Dialogical Relation

Another driving reason for the conflict between herders and farmers is some pastoralist herders changing to sedentary lifestyle step by step (Gursoy 9). Therefore, in some regions the grazing of animals is done by younger Fulani generations. The younger herdsman are usually not well experienced in negotiating with the farmers like their older peers. Traditionally, herdsman used to go to farmers in dry season right after the harvesting time and ask for allowance to use their land for grazing. This method worked successfully among the two groups for a long time (Gursoy 10). The younger generation is not able to solve the issues with farmers because they do not know how to negotiate and be political with them. This causes violent disputes among the groups (Shehu, 358).

New Husbandry Methods

Another factor triggering the crisis is the changing farming and pasturing practices in recent times due to changes in environmental and ecological factors. As an example, the Tiv ethnic group can be mentioned in here. Tivs are the most populous ethnicity in central Nigeria, living mostly in Benue state with around 4 million population (it was 800000 in 1953) (Gursoy 10). Tiv are settled farmers and their population is not concentrated but instead spread around the county. Due to the rapid population growth and the need to produce more, the Tiv began occupying more arable land and gradually decreased the amount of land they leave to fallow during dry season. This means less space for herdsman in this region to graze their livestock (Genyi 145). Of course, the consequence is conflict especially since the herders of this generation lack the moral savvy or predisposition to dialogue with the farmers for grazing space.

More so, some irrigation projects from the government (such as Agricultural Development Project) allowed farmers to cultivate more land during dry season. While some farmers got more income and found employment in dry season, many herders lost the grazing paths they used to utilize before (Gursoy 10). With the government's National Fadama Development Project (since 1993) which allowed farmers to engage in irrigation farming even in dry season, the space left for pasturing narrowed even more. These changes in usage of land created problems among both groups as all fight for their livelihood which depends on scarce resources (International Crisis Group).

Bad Governance

The Grazing Reserves Act was enacted in 1964 by Nigerian Federal Government, in order to separate certain areas for pastoralist activities. This law was the first official step to encourage sedentarism among pastoralist herders. According to the Act, the government designated 415 specific areas for grazing purposes. However, the aim was not realized because only 114 of those were given the grazing land status officially (Gursoy 9). Even those which were given the status were not properly protected as grazing areas. The ones without an official status mostly ended up as new construction areas, either for business or housing (International Crisis Group).

With the creation of new administrative units after independence, some of the grazing lands became parts of two different local governments. The Land Use Act which was accepted in 1978 gave the decision-making power about land leasing and renting to these units with powers conferred on the State Governors and sometimes Local Government Chairmen (Oladotun & Emmanuel 7). Herders, owing to their lifestyle and cultural disposition (land is everybody's), could not benefit as

expected from the promulgation of the Land Use Act. They continued to depend on their perceived freedom to graze wherever they wish, heightening the tension between local farmers and herders. Moreover, the political elites, those occupying public offices lack the political will to deal with the situation. No arrest of any kind has been made in spite of the very destructive actions of some herders. The general view among farmers and other observers is that herders enjoy some level of protection from the government in spite of the fact that they have been declared one of the most dangerous terrorist organizations internationally.

Failing Efforts Made to Resolve the Crisis

Kwaja & Ademola-Adelehin (9-11) rightly captures the following strategies as the response of government and civil organizations to resolving the perennial farmer-herder crisis.

- **Creation of grazing reserves:** In 1965, the northern regional government of Nigeria initiated one of the first attempts to respond to the crisis of pastoralism that was linked to emerging conflicts between farmers and herders in the country. The *Northern Region Grazing Reserves Law of 1965* created corridors for the passage of migrating livestock and 415 grazing reserves throughout the country. While initially considered a legislative solution to the crisis, population growth, urbanization, and migration encroached on these designated areas, reducing herders' access and usage of the reserves (7). In addition, herders were often unable to find sufficient pasture and water within the confines of the reserves due to climate changes and poor maintenance.

- **Establishment of the National Commission for Nomadic Education (NCNE):** The federal government established the NCNE in 1989 through Decree 41. It is presently known as *Nomadic Education Act, Cap No. 20 Laws of the Federation*. The main goal of the program was to economically and socially integrate nomadic pastoralists into the national life, through the provision of relevant, functional, and mobile basic education. It was also designed to help the pastoralists modernize their techniques of rearing cattle to maximize their economic potential, including dairy processing and marketing, animal vaccinations, and modern herding techniques (7). This strategy also failed to resolve the crisis due to challenges such as dilapidated infrastructure and human resource deficits and the recalcitrance of herders to change.
- **Deployment of security:** The deployment of security agencies has been a dominant feature of the federal government's response to farmer-herder conflict. In Plateau state, a Special Task Force – Operation Safe Haven (STF-OSH) – has been deployed since 2001 to restore law and order. This Task Force is composed of officers and infantry of the armed forces, including the police, with the mandate to restore order and stability. Recently, the federal government expanded its mandate to include Kaduna state, thereby replacing Operation Harbin Kunama II, (Scorpion Sting) (8). In the Southern part of Nigeria security outfits like *Amotekun* (in the South-west) and *Ebubeagu* (in the South-east) have been set up to check the excesses of the marauding herders. These have reduced the incidence of herder attacks on farmers in rural communities in the South but the crisis is still horrible in the North.
- **State-level legislations prohibiting open grazing:** Benue State Government enacted the Open Grazing Prohibition and Ranches Establishment Law, 2017, on May 22, 2017, in response

to the lingering conflict between farmers and herders in the state. Implementation of the law began on November 1, 2017. In the wake of the Benue State legislation, other states have considered similar legislation to respond to lingering conflicts between farmers and herders within their borders (8). More recently, it is now a common administrative strategy among the governors of the Southern region of Nigeria. As at 2th September 2021 about ten southern governors have prohibiting open grazing by herders within their territory. This too does not ensure a stop to the crisis because herders are still seen indulging in open grazing within regions where it is prohibited by law.

- **The Federal Government's Comprehensive Livestock Development Plan:** In 2015, the Federal Ministry of Agriculture and Rural Development (FMARD) formulated what was referred to as a "comprehensive livestock development plan." The plan was to address lingering conflict between farmers and herders across the country and develop grazing reserves as well as cattle routes, through a review of the existing program (9). This too failed due to lack of political will to implement the strategy.
- **The Great Green Wall Initiative:** In response to the economic, political, and security challenges posed by climate variability and environmental degradation, the African Union introduced the Great Green Wall Initiative (GGWI) in 2007. The GGWI set out to create an 8,000km (nearly 5,000 miles) of trees along the southern Sahel, accompanied by rural development and ecosystem management initiatives, to combat the encroaching desertification of the Sahara Desert. This project collapsed in Nigeria due to inadequate funding.

- **Community-level conflict management and resolution:**

Traditional and community leaders have been major influencers in conflict management and resolution for localized conflicts between farmers and herders (10). This community based interventions haven't proved sufficient too to resolving the crisis. Heads of Miyetti Allah Cattle Breeders Association of Nigeria (MACBAN) and heads of local farming communities led by mediatory bodies have not been able to resolve the crisis through dialogue due to irreconcilable differences.

- **The Use of Information, Communication, and Technology (ICT):**

cattle theft has often led to herder and farming community clashes. In response to cattle theft, the Miyetti Allah Cattle Breeders Association (MACBAN), in partnership with Zycom Surveillance Nigeria and Datamars of Switzerland, has developed and adopted a Radio Frequency Identification Device (RFID) system that is capable of tracking and monitoring the movement of cattle (10). The Cattle Rustling Information System (CATRIS), which was designed by the Centre for Information Technology and Development (CITAD) is able to provide real time information and alerts on cattle rustling in states within the North West region of the country (10). This effort hasn't done anything concrete to check the spate of herder-farmer clashes and the banditry that has become a consequence of both the herder excesses and Boko Haram insurgency.

There are many other known, recorded and possibly unrecorded strategic interventions made by civil societies and individuals, apart from government efforts, to bring and end to the perennial clashes between herders and farmers. The commonality among all these interventions is that they have all failed albeit at different magnitudes to put a permanent end to the problem. Of course, the crisis has worsened in recent times due to the

changing unfriendly climatic conditions within the Sahel and specifically within Northern Nigeria, and the softness with which the central government is handling the herders' excesses due to perceived tribal cleavages. It cannot, however, be concluded that there can be no ways to proffer solution to this ugly crisis since a great many proffered solutions have already failed to yield fruit.

It is pertinent to observe that herders and farmers were not sworn enemies from the beginning. In the 1970s through 80s, 90s and even earlier in the 2000s, farmers and herders went about their activities serenely. There were no issues between the two sets until later in the 2000s. If the two groups enjoyed cordiality in times past but now find themselves in an unending struggle for resources, it means that there is something that went amiss in their way of interaction with each other that led to the crisis. And since all efforts made to resolve the crisis have proven abortive since Adam, it also means that until the missing element in Farmer-Herder relationship is restored nothing productive may be recorded toward curbing the crisis between the two. In what follows, effort is made to spot this missing element by reflecting on Gabriel Marcel's philosophy of intersubjectivity.

Gabriel Marcel's Intersubjective Philosophy

Marcel emphasizes two general ways of comporting ourselves towards others that can be used as a measure for human relations; they are *disponibilité* and *indisponibilité*. These words—generally translated as either “availability” and “unavailability” or, less frequently, as “disposability” and “non-disposability”. These bear meanings for Marcel that does not fully apply synonymously in English language. The term *disponibilité* refers

to the measure in which I am available to someone, the state of having my resources at hand to offer; and this availability or unavailability of resources is a general state or disposition. While it may appear that there is the possibility of a selfish allocation of one's resources, the truth is that when resources are not available, their inaccessibility affects both the other and the self. Marcel comments frequently on the interconnected nature of the treatment of others and the state of the self.

Indisponibilité (unavailability) can manifest itself in any number of ways; however, "unavailability is invariably rooted in some measure of alienation" (Marcel, *The Philosophy* 40). Pride is an instructive example of *indisponibilité*, although the same state of non-disposability would also exist in a person who has come to view herself in functional terms, or one who is blinded by a purely technical worldview. Pride is not an exaggerated opinion of oneself arising from self-love, which Marcel insists is really only vanity; rather, pride consists in believing that one is self-sufficient (Marcel, *The Philosophy* 32). It consists in drawing one's strength solely from oneself. Marcel notes: "The proud man is cut off from a certain kind of communion with his fellowmen, which pride, acting as a principle of destruction tends to break down. Indeed, this destructiveness can be *equally* well directed against the self; pride is in no way incompatible with self-hate..." (Marcel, *The Philosophy* 32). For the person who is *indisponible*, other people are reduced to "examples" or "cases" of genus "other person" rather than being encountered *qua* other as unique individuals. Instead of encountering the other person as a 'Thou', the other is encountered as a 'He' or 'She', or even as an 'It'. Marcel explains:

If I treat a 'Thou' as a 'He', I reduce the other to being only nature; an animated object which works in some ways and not in others. If, on the contrary, I treat the other as 'Thou', I treat him and apprehend him *qua* freedom. I apprehend him *qua* freedom because he *is* also freedom and not only nature. When I treat the other person as a He or She, it is because he or she is kept at arm's length but within my grasp, outside of the circle that I form with myself in my *cogito* but inside the circle of "my world" (Marcel, *Being and Having* 106-07).

In contrast, "the characteristic of the soul which is present and at the disposal of others is that it cannot think in terms of *cases*; in its eyes there are *no cases at all*" (Marcel, *Being and Having* 41). The person who is *disponible*, who is available or disposable to others, has an entirely different experience of her place in the world: he acknowledges her interdependence with other people. To be *disponible* to the other is to be present to and for him, to put ones resources at the other's disposal, and to be open and permeable to him. *Disponibility* is therefore the character of a balanced human relationship founded on a subject-subject (I-Thou) relation. *Indisponibility*, on the other hand, is the character of a disbalanced, denigrative and exploitative human relationship founded on a subject-object (I-It) relation.

Marcel gave to existentialism a view of freedom that marries the absolute indeterminacy of traditional existentialism with the view that transcendence out of facticity can only come by depending upon others with the same goals. Freedom is defined by Marcel in both a negative and positive sense. Negatively, freedom is, "The absence of whatever resembles an alienation

from oneself," and positively it is when, "The motives of my action are within the limits of what I can legitimately consider as the structural traits of my self" (Marcel, Truth and Freedom 232). Freedom, then, is always about the possibilities of the self, understood within the confines of relationships with others. For Marcel, therefore, freedom is participation in selfless relationship with others. In other words, the one who extricates himself from others because he thinks he is powerful and free is realistically not free at all.

Marcel's Intersubjectivism and Farmer-Herder Crisis: Way Forward

Marcel's philosophy of intersubjectivism is a dialogical ethic that emphasizes the importance of a balanced interrelation between persons based on mutual beneficence. He demonstrated what an ideal relationship is using the I-Thou as against the parasitic and exploitative one represented by the I-It. In the I-Thou all persons or parties involved have mutual respect for one another or each other depending on the parties involved. The mutual respect is inspired by the knowledge that all persons involved in such a relationship are equals; they are all equals because they share the same humanity. Consideration is not given to necessary accidental differences that may exist among the parties such as level of education, intelligence, political affiliation, level of wealth, tribe or ethnicity, religion, etc. This is because in the I-Thou, all are viewed as subjects. What determines the bond is not the material nature of each person but the essential fact that all participants are persons with a common humanity, the same dignity as persons, and therefore, equal rights. In fact, according to Marcel, in this manner of relationship, each party is always

predisposed to contribute to the welfare of the other. The goal is therefore not who becomes greater than the other, but who outshines the other in acts of charity and self sacrifice. Each party applies his resources always to the wellbeing of the other.

This is the manner of relationship that must be re-engendered between herders and farmers in order to put a final stop to the perennial crisis. Regrettably, the farmers and herders relate on the level of I-It, subject-object relationship; one always seeks opportunity to undermine the other's welfare. Each always sees the other as an enemy to his economic prosperity. The herders see the farmer as never ready to apply his pastures as grazing reserves for their cattle; they therefore seek every opportunity to bulldoze their way into farming territories, graze their cattle, destroy cash crops, and more recently, attack, maim and kill the helpless farmers. In response, the farmer now sees the herder as the devil's incarnate; hence, instead of permitting herders to graze their flock on his land before or even after harvest when the land is free of plantation, he rather sets it on fire. Farmers fret at the presence of herders because their presence have become synonymous with death; herders too seek opportunities to destroy whatever they can and loot whatever valuable they see that belongs to farmers as they go about their trade. Consequently, instead of mutual beneficence based on love and trust that I-Thou relations promote; mutual distrust and exploitation is the norm that underlines the I-It relations that exist between Farmers and herders. The result of this is the humongous wreck that has engulfed many communities in the North Central region of Nigeria due to farmer-herder struggle

for resources. Of course, the ripple of this is now being felt across boards in the country.

Based on Marcel's dialogical philosophy, it is obvious that the fundamental cause of this crisis is not the inadequacy of scarce ecological resources imposed by climate change; it is rather a sudden awakening of a hideous consciousness among herders and farmers that the trade of one party is more important than that of the other; that the tribe of one party is superior than that of the other; that because one party is superior to the other, they can rightfully possess what belongs to the other illegally; and consequently, that because one party's trade is nomadic and some criminal elements use the trade as opportunity to cause harm to others, all those who belong to that trade should be treated as animals and be rejected by the society. This malicious consciousness implies that the two groups suddenly lost the sense of humanity with which they saw, related and treated each other *ab initio*. One suddenly began to see the other as 'less' humans, an 'It' and vice versa. This lack of 'human touch', the loss of the consciousness that whether herder or farmer, Fulani or any other farmer tribe, we all equally 'human' with same dignity as persons, is the quality that went amiss leading to the breakdown in herder-farmer relationship in Nigeria. And until this lack is restored, all other attempts at resolving the crisis will continue to prove futile. In fact, it is possible that even if the Sahel region turns green with beautiful grazing lands available all through the year, there is every chance that the crisis will continue because hate and dissent is already sowed between both parties for generations. Seemingly, one party now sees it as a responsibility to kill, destroy and claim the property of the other.

Conclusion

As noted already, a lot of energy, resources and manpower has been fruitlessly channeled by government and other concerned bodies to nick this crisis in the bud. These measures have been futile because they failed to address the root cause of the crisis which is the sudden but wrong realization by one party that the other's trade is not as important as theirs; one party is more important or even more human than the other. This malicious consciousness is fuelled by tribalism and religious bigotry especially on the path of some political elites and religious heads who are supposed to be of good reckoning. The fact that the crisis worsened under the present national political leadership is a pointer to this fact. Many troubled Nigerians too have rightly observed that the perceived nonchalance of the Buhari administration to hit hard at the menacing herders (his kin both in tribe and trade) is the reason why the crisis has worsened presently.

Effort must, therefore, be made by all stakeholders, religious and political especially, to help restore the lost values that went amiss in the manner herders and farmers view each other. Religious leaders should help re-inculcate the spirit of equality among their folks by constantly reminding all that despite, tribe, race, ethnicity, political party or religion, all human persons are the same because they are all composed of the same components- body and soul. The elderly among the farmers and herders and village heads or heads of nomadic communities must employ every means possibly to register this core human value on the younger ones.

The government too must be seen to be doing everything possible to engender equality and tolerance between the two groups via policy-making, manners of speech, imbursement of aides, etc. Government at all levels must avoid every tendency, no matter how minute, to make or promote policies that will make one group suspect being favoured more than the other or being neglected compared to the other. Government at all levels too must show practically the willingness to use the necessary State might against bad influences and criminal elements among herders and farmers who may be fuelling the crisis no matter their political or religious ranking. These will help close the gap and remove the feeling of superiority one party may be nursing over the other due to a perceived advantages being enjoyed.

More so, the farmers and herders must be treated like other normal civil servants or businessmen out there. Effort must be made by all stakeholders involved in tackling the crisis, especially the government, not to prioritize one of the two trades over the other. Both businesses are owned by individuals. Therefore, excessive and unnecessary considerations should not be made by government in favour of one as if a particular trade is the soul of the country. The emphasis here is transparency and fairness in government policies concerning herding and farming. This is necessary because the government and some powerful individuals and groups in Nigeria have inadvertently promoted this crisis through policymaking, speeches, and even silent gestures made which were perceived to be in support of one party. Such moves embolden one group over the other and serve them the impetus to claim a greater humanity over others and hence inflict whatever manner of harm they desire on others while in pursuit of their interests.

References

- Adeleke, M. "The Increasing Spate of Killings in Nigeria: Cases, Causes and the Needful," *African Development*, Vol. 2, No. 2, 2018, pp. 32-45.
- Ahmed-Gamgam, W.A. "Herdsmen and Farmers Conflict in Nigeria: Another Dimension of Insecurity," *Journal of Public Administration and Social Welfare Research*, Vol. 3, 2018, pp. 35-62.
- Alozie, C.C. "Communal Conflicts and Challenges of National Integration in Nigeria in the 21st Century," *International Journal of Social & Management Sciences*, Vol. 2, No. 1, 2019, pp. 39-50.
- Clara, T.V. "Insecurity, Loss of Lives and Policy Issues in Nigeria" *African Affairs*, Vol. 4, No. 2, 2017, pp. 67-79.
- Conroy, S. "Land Conflicts and Lethal Violence in Nigeria: Patterns, Mapping and Evolution (2006 – 2014)," *IFRA-Nigeria Working Papers Series*, Vol.38, 2014, pp. 1-38.
- Doyin, T. "An Empirical Investigation to Incessant Killings in Nigeria," *Journal of Philosophy*, Vol. 5, 2017, pp. 67-82.
- Genyi, G. A. "Ethnic and Religious Identities Shaping Contestation for Land Based Resources: The Tiv-Farmers and Pastoralists Conflicts in Central Nigeria until 2014," *Journal of Living Together - Vols. 4-5, No.1*, 2017, pp. 136-151.
- Gleick, P.H. "Water, Drought, Climate Change, and Conflict in Syria," *Weather, Climate, and Society (WCAS)*, Vol. 6, No. 3, 2014, pp. 331-340.

- International Crisis Group. *Herders against Farmers: Nigeria's Expanding Deadly Conflict*. Brussels: International Crisis Group, 2017.
- Kwaja, Chris M. A. & Bukola I. Ademola-Adelehin. "Responses to Conflicts Between Herders and Farmers in the Middle Belt of Nigeria: Mapping Past Efforts and Opportunities for Violence Prevention," *Search for Common Ground*, 2018.
- Marcel, G. *Being and Having*, K. Farrer trans. UK: Dacre Press, 1949.
- , Truth and Freedom. *Philosophy Today* Vol. 9, 1965, pp. 210-271.
- , *The Philosophy of Existentialism*, M. Harari trans, Reissue Edition, 2002. California: Citadel, 1948.
- Nzeh, E. "The Effects of Migration by Nomadic Farmers in the Livelihoods of Rural Crop Farmers in Enugu State, Nigeria," *Global Journal of Science Frontier Research*, Vol. 15, No. 3, 2015, pp. 45-56.
- Oladotun, O. O., & Emmanuel, A. O. "Herders-Farmers' Communal Conflict in Nigeria: An Indigenised Language as an Alternative Resolution Mechanism," *International Journal of Multidisciplinary and Current Research*, Vol. 7, 2019.
- Okeke, O. E. "Conflicts between Fulani Herders and Farmers in Central and Southern Nigeria: Discourse on Proposed Establishment of Grazing Routes and Reserves," *An International Journal of Arts and Humanities AFRREV IJAH*, Vol. 3, No. 1, 2014, pp. 66-84.
- Oghuvbu1, E.A. & O.B. Oghuvbu. "Farmers-Herdsman Conflict in Africa: The Case of Nigeria," *Vestnik RUDN, International Relations*, Vol. 20 No. 4, 2020, pp. 698-706
- Omawumi E. *History of Fulani Herdsmen and Farmers Clashes in Nigeria*, *InfoGuide Nigeria*. 2016,

<https://infoguidenigeria.com/fulani-herdsmen-farmers-clashes/>. Accessed 20/09/ 2021.

Penrose, Jean-Paul, Bdliya, H. et al. "Stories on the Environment and Conflict from Northern Nigeria," S. Bass, H. Reid, et al. *Reducing Poverty and Sustaining the Environment - The Politics of Local Engagement*. London: Earthscan Publications Limited, 2005.

Shehu, H. "The Causes and Consequences of Fulani Pastoralist-Farmers Conflict in Nigeria," *International Journal of Innovation and Research in Educational Sciences*, Vol. 5, No. 3, 2018, pp. 357-361.

Chapter Fifteen

COVID-19 AND AFRICAN ENVIRONMENTAL/HERBAL BASED REMEDIES

Jude I. Onebunne, PhD

Department of Philosophy

Nnamdi Azikiwe Univesity, Awka

juno,anyj@gmail.com

&

Success Okechukwu

Nnadiesbube Research Institute

Ngozika Estate Phase 2, Awka

&

Benjamin C. Okoye

Universita Pontificia Salesiana,

Roma

Executive Summary

The emergence of COVID-19 pandemic has brought unprecedented changes to all nations of the world. The outbreak of the epidemic rises on daily basis globally but in Africa, there remains till date low reports of COVID-19 pandemic. Many researchers emerged to discover why there low turnout of COVID-19 victims' cases in Africa. This led to different philosophies and theories of ecology. Using the method of critical analysis, the researcher discovers that there is great contribution of African ecology (environment) to the high survival of COVID-19. On the other hand, the search for a possible cure and a vaccine for the novel coronavirus disease led to experiments on chlorophyll, aspirin and different African ecological medicinal plants as possible cure to covid-19 in Africa.

Keywords: Africa, ecophilosophy, ecosophy, COVID- 19, ecology

Introduction

The COVID-19 pandemic is an unanticipated phenomenon that has exposed human fragility in an interconnected and interdependent world. In December 2019 a novel corona virus (COVID-19) was detected in Wuhan, China and has since spread around the world (Kanu 2020a). COVID-19 is an illness caused by a novel corona virus called severe acute respiratory syndrome corona virus 2 (SARS-CoV-2; formerly called 2019-nCoV) which was first identified amid an outbreak of respiratory illness cases and uncontrollable death cases. According to Africa CDC (2020), the disease spreads from person to person through infected air droplets that are projected during sneezing or coughing. It can also be transmitted when humans have contacts with hands and surfaces that contain the virus and touch their eyes, nose, or mouth with the contaminated hands. To fight COVID-19, the Government has prohibited people from the crowding around, social distance, wearing masks and always washing their hands (Keni R etal;2020).

As of 18th April, 2020, 10:00am CEST; WHO reported more than 2.1 million confirmed cases of COVID-19, including 142,229 deaths in 213 countries, areas or territories. The most affected countries with more than 30,000 confirmed cases of SARS-CoV-2 are the United States of America, Spain, Italy, Germany, France, the United Kingdom, China, Iran, Turkey, Belgium, the Russian Federation, Canada and Brazil. However, the number of cases continues to rise throughout the globe and became a serious menace to public health. COVID-19 is majorly affecting many countries all over the world. The continent confirmed its first case of COVID-19 in Egypt on 14th of February, 2020, and from

sub-Saharan Africa the first case was reported in Nigeria on 27th of February, in an Italian patient who flew to Nigeria from Italy on 25th of February, 2020.

Later, as of 22 May 2020, 54 of 55 AU Member States (except Western Sahara) had reported over 100,000 cases and 3,100 deaths. The northern region of the AU had provided notification of the most cases at that time, reporting over 31% (over 31,000 cases) of the cases from Africa and the highest regional case-fatality rate (5%), with countries such as Egypt (15,003), Algeria (7,728) and Morocco (7,300) driving the overall numbers.

However, Africa is expected to be the most vulnerable continent where COVID-19 victim cases run into millions due to swamp environments and their inability to maintain hygiene and social distance as a result of overpopulation but there is no much cases of other continents. Different researches came up with various ecophilosophies ranging from our hot weather, chlorophyll emitted from herbs and other herbal medicines as a potential option to cure or prevent COVID-19.

COVID-19 pandemic

The introduction or outbreak of Corona Virus in December 2019 was firstly detected in Wuhan, China and since then, spread around the world. COVID-19 is an illness caused by a novel corona virus called severe acute respiratory syndrome corona virus 2 (SARS-CoV-2; formerly called 2019-nCoV) which was first identified amid an outbreak of respiratory illness cases and uncontrollable death cases. On January 30, 2020, the World Health Organization (WHO) announced that this outbreak had constituted a public health emergency of international concern (Mahase 2020). The novel coronavirus was initially named 2019-nCoV and officially as severe acute

respiratory syndrome coronavirus 2 (SARSCoV-2) (Smith, S.,2020). As of February 26, COVID-19 has been recognized in 34 countries, with a total of 80,239 laboratory-confirmed cases and 2,700 deaths (WHO 2020). According to recent research of Viral Etiology, similar to SARS-CoV and Middle East respiratory syndrome coronavirus (MERS-CoV), SARSCoV-2 is zootoxic, with Chinesehorseshoe bats (*Rhinolophus sinicus*) being the most probable origin. Majority of patients experienced fever and dry cough, while some also had shortness of breath, fatigue, and other atypical symptoms, such as muscle pain, confusion, headache, sore throat, fricaa and vomiting. Currently, the approach to COVID-19 is to control the source of infection and adhere to preventive measures (Franco FM, 2019).

COVID-19 in Africa

The most-affected countries so far are South Africa (confirmed cases = 2783, mortality = 1.8%), Egypt (confirmed cases=2844, mortality = 7.2%), Morocco (confirmed cases = 2564, mortality = 5.3%), Algeria (confirmed cases = 2418, mortality = 15.0%) and Cameroon (confirmed cases = 1016, mortality = 2.1%). However, due to inadequate testing capacity for COVID-19 the true number of cases may remain undetected, which makes it challenging to predict or conclude the true epidemiology of COVID-19 in the continent. Certainly, several major factors, such as late arrival of the pandemic, weak diagnostics including inadequate COVID-19 testing, lack of essential medical supplies and a large susceptible population will significantly affect and change the epidemiology of COVID-19 in the continent (Cunningham AB., 2020; Kanu 2020b).

According to Daou, M. (2020) Table 1. Epidemiology of COVID-19 cases in some African countries as of 18th of April, 2020.

Country	Confirmed cases	Deaths.	Recoveries	First case/s
Algeria	2,418	364	846	25 th Feb, 2020
Angola	19	2	6	21 st Mar, 2020
Benin	35	1.	18	16 th Mar, 2020
Botswana	15	1	0	30 th Mar, 2020
Burkina Faso	557	35	294	9 th Mar, 2020
Burundi	6	1	44	31 st Mar, 2020
Cameroon	1,016	21	168	6 th Mar, 2020
Cape Verde	56	1	1	20 th Mar, 2020
Egypt	2,844	205	646	14 th Feb, 2020

Ethiopia	96	3	15	13 th Mar, 2020
Ghana	641	8	83	12 th Mar, 2020
Gambia	9	1	2	17 th Mar, 2020
Guinea	477	3	59	13 th Mar, 2020
Gabon	108	1	7	12 th Mar, 2020
Kenya	246	11	53	12 th Mar, 2020
Liberia	76	7	7	16 th Mar, 2020
Mali	190	13	34	25 th Mar, 2020
Morocco	2,564	135	281	2 nd Mar, 2020
Niger	627	18	110	19 th Mar, 2020
Nigeria	493	17	159	27 th Feb, 2020

Sierra Leone	26	0	0	31 st Mar, 2020
South Africa	2,783	50	903	5 th Mar, 2020
Togo	83	5	48	6 th Mar, 2020
Tanzania	147	5	11	16 th Mar, 2020
Uganda	55	0	20	20 th Mar, 2020
Zambia	52	2	30	18 th Mar, 2020
Zimbabwe	24	3	2	15 th Mar, 2020

Medicinal Plant-Based Treatments

Researchers such as Geli, P. (2020) have claimed that medicinal plant-based treatments should be beneficial to treat and prevent COVID-19. Yang et al reported that plant species traditionally used as food can help to enhance the immune system of the body and help to prevent the manifestation of COVID-19. This led to experiments on the following:

Hot temperature and humidity

Visual inspection of world maps shows that coronavirus disease 2019 (COVID-19) is less prevalent in countries closer to the equator, where heat and humidity tend to be higher.

Among the several environmental factors that influence the survival and spread of respiratory viral infections, air temperature plays a crucial role. Cold weather makes the respiratory system sensitive to infections. This is why people tend to suffer from respiratory infections during cold winter months. In tropical climates, influenza and respiratory viruses are transmitted more during the cold rainy seasons.

According to Folke, C. et al, In sub-Saharan Africa, most African countries that have recorded cases of COVID-19 such as South Africa, Nigeria, Senegal, Togo, Cameroon and Benin have mean monthly temperatures of 20 to 32 degrees Celsius in this same period. Meanwhile, Algeria and Egypt. North African countries that have seen cases had monthly temperatures between 11 and 17 degrees Celsius (World Bank; 2001).

Many respiratory viral infectious diseases such as those caused by the human respiratory syncytial virus (RCV), influenza virus, and human corona viruses show seasonal oscillation and are prevalent during winter. Transmission of influenza was found to increase in colder and drier conditions. In addition, the severe acute respiratory syndrome (SARS), caused by the coronavirus SARS-CoV, is affected by temperature. The fact that SARS and COVID-19 are caused by coronaviruses and the outbreak of both diseases started during the winter seem to suggest that winter conditions could be promoting transmission of these infections (Intergovernmental Panel on Climate Change (IPCC),2001).

Therefore, previous coronaviruses spread more during the colder winter months. Also, there are marked temperature differences between the most affected (colder) and least affected countries (warmer) in the COVID-19 pandemic.

Herbal medicines-All Leaves and Lemon Grass

The new coronavirus disease (COVID-19) pandemic has caused global socio-economic disturbances with a worri-some number of deaths and health issues, and the world has been struggling to find medicine to treat and prevent COVID-19. A number of combinations and trials have been done, but so far, they have not produced promising results. The different types of misinformation related to COVID-19 have been spreading throughout the world through social media, including use of medicinal plant products to prevent or cure COVID-19. Due to this situation, ethnobiologists collaborated with local people and document the medicinal plants. (Adnan N, Othman N, 2019)

There is a strong inter-relationship between people and plants. People are dependent on plants for different purposes such as for food, medicine, and houses. Plant species have always been a fundamental source for the discovery of drugs. People had used medicinal plants to fight against pandemics in the past, and dependency of people on medicinal plants might have increased in these days around the world as medicinal plants can be an alternative option to prevent COVID-19. Different researchers in Africa have suggested herbal medicine as a potential option to cure or prevent COVID-19.

In Africa, the medicinal plants are often used in the traditional medicine system. More than 80% of the people have been using traditional medicine such as medicinal plants. Medicinal plants are the primary source of healthcare for the people in Africa and are an integral part of their culture. Most of the people in Africa have been using medicinal plants as the alternative to allopathic or western medicine. It has also been playing an important role in increasing the economic level of people as Africans exports medicinal plants to different countries in the world. The elder

people living in rural areas have more knowledge of traditional medicine.(Harris DR, Hillman G.,2016).

Again, according to Wackernagel, M. et al., COVID-19 the health care system is fragile and has a lack of infrastructure. In this context, home remedies, like the use of medicinal plants supported by the relevant authorities, can serve as an alternative option to combat COVID-19. The government has also valued medicinal plants as an immunity power booster used with prescriptions.

According to Van der Veen M. (2014), medicinal plants were combined with western medicine to treat a similar disease, Severe Acute Respiratory Syndrome (SARS). There is no effective medicine available so far for the treatment of COVID-19; medicinal plants are being used globally that might have increased the demand for medicinal plants. Some plants are useful to treat viral disease, but COVID-19 is a new disease, and the effectiveness of the medicinal plants to cure it has not been tested yet. Therefore, the excessive use of medicinal plants, however, could be problematic and is a matter of concern.

Therefore, all the stakeholders including ethnobotanists and community leaders should come together to educate people about the proper use of medicinal plants. The validity and reliability of such medicinal plants should be tested further by phytochemical and pharmacological research, and invalid information should be monitored and controlled in different social media platforms and communities. It is recommended that people follow information from authentic sources related to the COVID-19 pandemic.

Hot Water Therapy with Ginger, Garlic, Uziza leaf, Uda Seed, Turmeric powder and Lemon As An Undeniable Last Resort To The Treatment of Covid-19 Both in Africa and Globally:

The greatest conspiracy of Covid-19 is that it is not curable and many doubt if it is actually preventable. But the fact is now clear that the outcome of the Covid-19 pandemic is no more impossible to predict.

At the time of this writing, many doctors, health workers and professionals have questioned the pandemic nature of COVID-19 with all the known and common symptoms and curative responses from across the globe. No doubt, the symptoms of Covid-19 infected patients are obviously synonymous to many of us in Africa e.g. African countries like Nigeria, Zambia, Lome-Togo, Ghana et cetera have been used to and accustomed with, instances remain the common malaria and Typhoid, Fever etc. However, this great killer called Corona virus pandemic, based on authentic and undeniable evidences and proofs majorly in Africa and by some brave Africans as Dr. Stella Immanuel [Cameroonian], confirms that COVID-19 pandemic is undeniably curable with some common medication that can be related to malaria medication. Equally COVID-19 patients have responded curatively to most traditional African medicinal herbs as uzizah, turmeric powder, ginger, garlic, hot water therapy and lemon leaves as already noted. Fortunately for Africans and her preventive climatic nature, there exists natural resources with regard to curative herbs constituting African Traditional medicine and the already quinine medication in Africa with the advent of the European explorers and their encounter with malaria pandemic. No doubt therefore that most dreaded diseases as have been termed deadly outbreaks and branded pandemic are actually regional diseases as Malaria in Africa and COVID-19 of the Western world.

It is no news that the aforementioned African Traditional herbs and remedies have been practically used to the treatment of many infected COVID-19 patients in Africa [Nigeria for example] and others globally, albeit, many studies projected that the severity and disaster of COVID-19 would have been a sorry sight in Africa. Thus, aside the benefits of these traditional African herbs and seed extracts to the treatment of Covid-19 as has obviously confirmed, the below stands as their other numerous health benefits.

Uda Seed (Negro Pepper):

Uda seed or Negro pepper is an aromatic spice commonly used in flavoring foods in certain parts of the world, including Nigeria, Ghana, Brazil, among others. It is called *uda* in Igbo language and *eeru-alamo* in Yoruba language. One thing about Negro pepper is that it is versatile in nature, i.e. its bark, seeds, stem, fruit and leaves can be used for several purposes, ranging from culinary, medicinal and sexual purposes.

Nutritional Value of Uda Seed

- **Has Anti-Inflammatory Purposes:** Inflammation is the body's way of responding to injuries, infections, wounds and any damage of any tissue.
- **Packed with Antioxidants:** This means that this spice can be used for educing the risk and effect of cancerous tumours.
- **It is a Great Remedy for Dermatological Problems:** It has been proven to be a great remedy for treating skin conditions including boils, itches, skin eruptions etc.
- **Treats Respiratory System Diseases**
- **Prevents and Treats Malaria:** Malaria is one of the life-threatening diseases in the world and is majorly caused by parasites spread to people via the bites of infected mosquitoes. No wonder it is a remedy to the treatment of

Covid-19 pandemic and it really works. Ostensibly, report shows that more than 500 to 1000 million cases of malaria are recorded yearly and it led to the death of over 700,000 people. Common symptoms of malaria include- fever, headach, chills, nausea, vomiting, fatigue, sweating, cough etc.

- It Keeps Rheumatism at Bay and Relieves Gastrointestinal Problems
- Also Used To Treat Menstrual Problems

Uziza: The spice is known to provide nutritional, culinary, insecticidal and medicinal benefits. The antioxidant (flavonoids) in uziza prevents oxidative cell damage and has strong anticancer and anti-ulcer activity. Uziza seeds are recommended for anti-inflammatory management and purposes. It is rich in dietary fibre. In Eastern Nigeria, Uziza seed is consumed by women after childbirth to enhance uterine contraction and expel retained matter from the womb.

Lemon: The bottom line is that lemon contains a high amount of vitamin C, soluble fibre and many compounds that give a number of health benefits. It aids weight loss and reduces risk of heart disease, anemia, kidney stones, digestive issues and cancer.

Complementary Possible Treatments and Curative nature of COVID-19

Management of the complications of COVID-19 relies on supportive care and oxygen supplementation via non-invasive or mechanical ventilation. Patients who are critically ill may require vasopressor support and antibiotics for secondary bacterial infections(Chaplin, 2020). The absence of an effective treatment against severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) infections has led clinicians to redirect

drugs that are known to be effective for other medical conditions to the treatment of COVID-19. Key among these repurposed therapeutic agents are the antimalarial drug chloroquine and its analogue hydroxychloroquine, which is used for the treatment of autoimmune diseases, such as systemic lupus erythematosus and rheumatoid arthritis (Mehra *et al.*, 2020). These drugs have been shown in laboratory conditions to have antiviral properties as well as immunomodulatory effects. Other repurposed therapeutic agents include; remdesivir, lopinavir, interferon beta-1a, doxycycline and azithromycin.

Can COVID-19 be sustained and if so, for how long? Are the most pertinent questions to humanity now. According to WHO at the time of this write-up, “to date, there are no specific vaccines or medicines for COVID-19. Treatments are under investigation, and will be tested through clinical trials.” But testimonies abound against WHO’s stand. This stand that there is *no known cure* is against all known vocal dissensions and applied cure from the globe as well as the much sounded trumpet of victory from Africa and beyond that COVID-19 is curable with herbs and known dosage prescriptions of some curative drugs. Dr. Stella Immanuel (Gwandiku-Ambe) a bold medical professional from Africa that studied in Nigeria working in Houston Texas, who was actively involved in handling many COVID-19 patients, thundered alongside other medical professionals, in front of the Supreme Court in Washington DC:

I refuse to be chained by fake science. I have successfully treated over 250 COVID patients with *Hydroxy Chloroquine (HCQ) combined with Zinc and Zitromax*. No deaths. All these double blinded studies sponsored by big Pharma are fake science.

The speech was golden and consoling. It was in line with nature trying to regenerate itself. It fits into the known fact that there is always a way-out in every know predicament. Dr. Stella

Immanuel, a Cameroonian, who studied general medicine in University of Calabar, Nigeria, is an Emergency Medicine Specialist in Katy, Texas. She graduated with honors in 1990. Dr Stella Challenged the CNN experts on COVID19 for this long deception on the curative of COVID-19. However, Dr. Harvey A. Risch, MD, PhD, a professor of epidemiology at Yale school of public health, said the key to defeating Covid-19 already exists. Dr. Risch, who has authored over 300 peer-reviewed publications and currently holds senior positions on the editorial boards of several leading journals, is calling on government and health officials to start using hydroxychloroquine, which has been shown to reduce coronavirus death rate by half in covid-19 patients. He is of the opinion that hydroxychloroquine has shown to be highly effective when given very early in the course of the illness, especially when combined with the antibiotics azithromycin or doxycycline and zinc supplement.

At the time of this writing, many doctors and health workers have questioned the pandemic nature of COVID-19 with all the known and common symptoms and curative responses from across the globe. The Symptoms of COVID-19 infected patients are symptoms many of us in Africa, Nigeria, have been accustomed with, like the Malaria-Typhoid symptoms. But we can learn from pandemics in history to determine our best courses. However, upon being discharged from the Gwagwalada isolation centre in Abuja, the founder of DAAR Communications, Mr. Raymond Dokpesi, had told journalists that he could not differentiate between malaria and COVID-19 because he was placed on dosage of malaria drugs while at the centre. These are our teachers – the Spanish flu, the AIDS pandemic, and more. Prevention is better than cure. Nobody is against it. It remains the best cure to all human ailments, even spiritual and other wise. As already reiterated above, it is a fact

that most dreaded diseases that have been termed deadly outbreaks and branded pandemics are actually regional diseases like in the case of Malaria and Typhoid disease of Africa Continent and Pandemic of US and European extracts. In Nigeria for example, the hypes about COVID-19 were something else. People doubt if there was COVID-19 with shocking facts. And if there was, many believe that we are used to the symptoms. Equally some went out to show that it was curable against all odds like malaria and other dread diseases of the Western countries which are home ailments in Nigeria. In Nigeria Punch Newspaper of May 28, 2020 it was reported by the experts on the Presidential Tasks Force on COVID-19, 2020 as saying that “three of numerous claims of COVID-19 herbal cure validated”.

A renowned double Professor of Biochemistry and Toxicology, Emeka Ezeonu in the midst of these crises of confusion and misleading info gave a scholarly attention and professorial caveat on COVID-19, with special regard to Dr. Stella Immanuel’s comment on the hidden and much possible cure, reassures us in his pronounced take on the whole thing thus:

I believe there is sufficient empirical data to show that hydroxychloroquine is relevant for either protection or treatment of COVID-19 at the early stage of infection as it inhibits the cytokine storm but once that stage is overcome its use becomes unreliable. I believe that there are some powerful Pharma companies that are fighting the use of Chloroquine because it impedes their business interest. Chloroquine was a wonder drug discovered during the Second World War and was a frontline drug for malaria for almost six decades until Artemisinin was discovered. The WHO quickly put away a very cheap and affordable chloroquine for a far more costly Artemisinin

based drugs. Till today there are people who never recover from boost of malaria except they take chloroquine. Sure chloroquine is toxic and most drugs are anyway, but weighed on a scale of balance its benefits are far higher. For me the simple solution is to let chloroquine be provided, it is contraindicated for susceptible clinical cases and age groups.

In all the theatrics and geopolitics of COVID-19, there was a dose of conspiracy theories that destabilized the world in utter confusion as a global pandemic and an economic inferno. However, from the onset of this monster disease, the voice of Africans seems not to matter with regard to its preventative nature as well as the curative status. Rather, Africans seem to be at the mercy of the European supremacy. It's unfortunate that many studies projected that the severity and disaster of COVID19 will be a tale of sorry sight in Africa.

Fortunately for the Africans and thanks to African climate there exists natural resources with regard to curative herbs constituting *African Traditional Medicine* and the already quinine medication in Africa with the advent of the European explorers and their encounter with malaria pandemic.

Notwithstanding, the much lauded pandemic nature of COVID-19 the *Nigeria Centre for Disease Control* (NCDC) played it out in the Nigerian way as there were attempts made to declare fake COVID-19 cases in the state, hence, the concession. The *NCDC*, however, was established in the year 2011 in response to the challenges of public health emergencies. Equally, there are lots of conspiracies and lies with regard to COVID-19. One is tempted to questionably doubt what actually the authorities are

trying to hide and achieve by making COVID-19 look untreatable and non-preventive when in actual fact it is so. An exercise of African philosophy of education on COVID-19 shows that: Malaria was and is still regarded as pandemic in most of the continental regions of the world while it is a mere common disease in Africa and many tropical regions.

COVID-19 may be a pandemic in temperate regions like China, US and European Continents but it is not a pandemic in African continent and many tropical regions of the world. That is, in Continents where malaria is a pandemic, COVID-19 is so but in other countries where Malaria and flu are not pandemic, COVID-19 is not. There should not have been any lockdown with regard to this sickness that is curable and avertable. Leaving our schools under lockdown now is a sign that the stakeholders in Education Industry in Nigeria are well uninformed.

Otherwise, the authorities in question must have known that the so called pandemic is mere epidemic and even mere sickness in our environment. As the saying goes that *anything can wait except training a child. His name is now*. Hence the great need for a functional African Philosophy of Education which will place education first. Therefore, there is need for a good philosopher of education who should be able to understand that COVID-19 is full of conspiracies and as Africans and Nigerians in particular the approach ought to be quite different.

Conclusion

The COVID-19 pandemic has not spared the world. Every nook and cranny on Earth has felt the heat of the pandemic. The aftermath of this epidemic is one that has never happened before. The number of its victims keeps increasing daily but in Africa, there are relatively low Covid-19 cases. Despite different ecological theories and experiments on medicinal herbs, there's

no guarantee that the pandemic cannot return back to Africa. Therefore, we should help by adhering to its safety measures and the government should provide its vaccines and equipment. Success in controlling the virus in Africa is in the interests of the whole world for we will not be safe as long as the virus still exists somewhere. The United Nations will continue to stand by Africa as it confronts the COVID-19 threat both in its immediate and longer-term manifestations.

References

- Adnan N, Othman N. (2019) The relationship between plants and the Malay culture. *Proc Soc Behav Sci.* 2012;42:231–41. <https://doi.org/10.1016/j.sbspro.2012.04.186>.
- Africa C. D. C. (2020) 'Novel Coronavirus (2019-nCov) Global Epidemic - 10 March 2020', URL: <https://africacdc.org/disease-outbreak/novel-coronavirus-2019-ncov-global-epidemic-10-march-2020/> [accessed: 27/03/2020]. Africa CDC (n.d.) 'About us', URL: <https://africacdc.org/about-us/> [accessed: 27/03/2020].
- Boulware D. R., Pullen M. F., Bangdiwala AS, Pastick KA, Lofgren SM, Okafor EC, Skipper CP, Nascene AA, Nicol MR, Abassi M, Engen NW(2019). *A randomized trial of hydroxychloroquine as postexposure prophylaxis for Covid-19.* N Engl J Med. 2020;383(6):517–25.
- Cunningham A. B. (2020). *Applied ethnobotany: people, wild plant use and conservation.* London and Sterling: Earthscan; 2001.
- Africa, CDC (2020) 'COVID-19: UPDATE IN AFRICA, 25 MARCH 2020 - 9:30 AM EAT', Twitter tweet, URL: <https://twitter.com/AfricaCDC/status/1242724814458105857> [accessed: 27/03/2020].

- Daou, M. (2020) 'Is Africa, with its low rates so far, ready to face the coronavirus pandemic?', France24, URL: <https://www.france24.com/en/20200312-is-africa-with-its-low-rates-so-far-ready-to-face-the-coronavirus-pandemic> [accessed: 27/03/2020].
- Ezeonu, Emeka, S comment on Dr. Stella Immanuel <https://www.odogwublog.com/tag/hydrochloroquine/> Retrieved 03/08/2020
- Fagan, B. Floods (1999). *Famines and emperors. El Niño and the fate of civilisations*. New York, USA, Basic Books.
- Folke, C. et al. (1996). *Renewable resource appropriation*. In: Getting down to earth. Costanza, R. & Segura, O. eds. Washington, DC, USA, Island Press.
- Franco FM, Bussmann R. W. (2020). Rising to the occasion: outlining ethnobiologists' response to the coronavirus (COVID-19) pandemic. *Ethnobotany Res Appl* 20: 1-4.
- Geli, P. (2020) *Preparing for the coronavirus and other epidemics in Africa*. URL: <https://www.brookings.edu/blog/frica-in-focus/2020/02/28/preparing-for-the-coronavirus-and-other-epidemics-in-africa/> [accessed: 27/03/2020].
- Harris DR, Hillman G. (1989). *An evolutionary continuum of people-plant interaction*. London: Foraging Farming. Unwin Hyman 31:11-26.
- Harshberger J. W. (1896). The purposes of ethno-botany. *Botanical gazette*. 21(3):146-54. <https://doi.org/10.1086/327316>.
<https://www.mphonline.org/worst-pandemics-in-history/>? Retrieved on 30/7/2020
<https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases>. Retrieved on 30/7/2020
<https://www.mphonline.org/epidemic-vs-pandemic/> Retrieved on 29/7/2020

https://en.wikipedia.org/wiki/Coronavirus_disease_2019#:~:ext=%22China). Retrieved on 01/8/2020

<https://www.cnbc.com/2020/04/30/coronavirus-trump-suspects-covid-19-came-from-china-lab.html> Retrieved on 27/7/2020

<https://www.mphonline.org/epidemic-vs-pandemic/>
Retrieved on 28/7/2020

Intergovernmental Panel on Climate Change (IPCC 2001). *Climate Change 2001: Third Assessment Report (Volume I)*. Cambridge, UK Cambridge University Press.

Iroegbu, Pantaleon. 1994. *Enwisdomization and African philosophy*. Owerri: International University Press.

Jim Meehan, MD & MeehanMD.com.
<https://healthimpactnews.com/2020/physician-and-medical-journal-editor-healthy-people-should-not-wear-face-masks/> Physician and Medical Journal Editor: Healthy People Should Not Wear Face Masks declared that . Retrieved 03/08/2020

Kanu, I. A. (2020). COVID-19 Pandemic and the Health of African Migrants. *AMAMIHE: Journal of Applied Philosophy*. Vol. 18. No. 2. Pp. 56-64.

Kanu, I. A. (2020). COVID-19 and the Economy: An African Perspective. *Journal of African Studies and Sustainable Development*. Vol. 3. No. 2. Pp. 29-36.

Kanu, I. A. (2020). Saint Augustine and COVID-19 Pandemic: The Future and Divine Providence. *Tansian University Journal of Arts, Management and Social Sciences*. Vol. 7. Pp. 151-162.

Keni R, Alexander A, Nayak PG, Mudgal J, Nandakumar K. (2020). COVID-19: Emergence, spread, possible treatments, and global burden. *Front Public Health*. 2020;8:216. <https://doi.org/10.3389/fpubh.2020.00216>.

- Martin GJ. *Ethnobotany: a methods manual*. Springer; Kew, United Kingdom: Royal Botanic Gardens; 2014.
- McMichael, A.J. (2001). *Human frontiers, environments and disease*. Cambridge, UK, Cambridge University Press.
- Smith, S. (2020) *What the Coronavirus means for Africa*, Africa Center for Strategic Studies, URL: <https://africacenter.org/spotlight/what-the-coronavirus-means-for-africa/> [accessed: 27/03/2020].
- Van der Veen M. (2014) The materiality of plants: plant–people entanglements. *World archaeology*. 46(5):799–812. <https://doi.org/10.1080/00438243.2014.953710>.
- Wackernagel, M. et al. (2002). *Tracking the ecological overshoot of the human economy*. *Proceedings of the national Academy of Sciences*. 99:9266–9271 (2002).
- World Bank (2001). *World development report. Development and the environment*. Oxford, UK, Oxford University Press, 1992.

WHO on Cure.
<https://www.google.com/search?client=firefox-b-d&q=Cure+of+COVID-19>. Retrieved 0n28/07/2020

Chapter Sixteen

AFRICAN TRADITIONAL RELIGIOUS TABOOS AND THE ECO-SYSTEM: A TIV PERSPECTIVE

Dorothy Nguemo Afaor

*Department of Religion and Cultural Studies
Benue State University Makurdi, Nigeria
dorafaor@gmail.com*

&

Rose Yangu Amah

*Department of Religion and Cultural Studies
Benue State University Makurdi, Nigeria
roseamah.ra@gmail.com*

Executive Summary

The study investigated African Traditional Religious Taboos and the Eco-system with reference to the Tiv people of North Central Nigeria. Although the value of Tiv traditional religious practices in natural resources management were previously regarded as inferior especially with the advent of Christianity, they are now receiving recognition as an important complement to existing conservation strategies. The eco-system has faced the challenge of degradation recently. The effects of globalization and human activities such as urbanization, mechanized agriculture, deforestation and infrastructural development have caused a lot of harm to the environment. The aim of this paper was to further re-emphasize the key role taboos play in the conservation of the eco-system. This paper argues that, the role of traditional beliefs in the protection of the environment and the eco-system has been great. This fact is reflected in a variety of religious practices including taboos. Among the Tiv, there is hardly any community without a sacred grove, forest, sacred pond, stream, or forbidden forest where some parts of the environment are

delineated for the worship of the gods and to offer sacrifices. It is valuable, therefore, to declare that some of the remaining natural forest areas and water sources in Tivland are being conserved consciously or unconsciously through the role of religious customs and beliefs. This paper calls for improvement by educating the people on the importance of preserving these natural resources and traditional knowledge-based systems of conservation.

Keywords: Religious Taboos, Tiv Religion, African Traditional Religion, Eco-system

Introduction

In African traditional society, approximately all tribes and ethnic groups acknowledged the reality of the sacred. Atungwa (2021) confirms that this understanding of the sacred is marked by identification of sacred places where men commune with their gods, offer sacrifices and receive favours. The abode of the gods carries restrictions and not every member of the community is allowed entry or contact. Orbunde (2021) affirms that in African traditional religion, the abode of the gods and goddesses are located in rocks, streams, ponds, trees, forests, grooves, hills or anywhere within the community that has the required aura.

The acknowledgement of the presence of the gods which warrants or informs the foundation for traditional religious ethics where taboos were instituted and observed. Ogunjinmi *et al.* (2009), therefore, points out that in African societies there abound various socio-cultural factors, religious beliefs, taboos and norms regulating the consumption and utilization of natural resources. Thus, the idea of taboos or traditional religious laws of preservation of the eco-system and natural resources as abodes for the gods played a huge role in the preservation of the environment overtime. According to Amonum *et al* (2017), the

records about the role of traditional beliefs in the conservation of natural resources abound and date back to creation. Traditional conservation ethics are capable of protecting natural resources as long as the local communities ultimately have a stake in it. Atungwa (2021) was of the opinion that such places are believed to have harnessed supernatural powers.

In Tiv traditional society, several taboos over time have provided for the preservation of the eco-system to the extent that members of the public who broke the laws were severely punished. Iorgyer (2021) and Atungwa (2021) corroborate that prior to the advent of Christianity in Tivland certain forests, hills, and ponds were strictly preserved as abodes for the gods. Orbunde (2021) adds that the gods vent their anger on whoever defiled such places; hence, the taboos and beliefs have backing in the rules and institutions of the communities that made and obey them. The present study investigates Tiv traditional religious taboos and the preservation of the eco-system.

Eco-System

Eco means natural habitat. The system for the existence of natural habitat of biological community (of organisms) interacting with their physical environments is the ecosystem. It includes all the living things (plants, animals, and organisms) in a given area that interact with each other, as well as with the non-living entities (weather, earth, sun, soil, climate, atmosphere, land) around them. The living and non-living (i.e. physical) components are linked together through nutrient cycles and energy flows. All the plants and animals (both macro and micro) on the Earth rely on the respective ecosystems for food and habitation.

Taboo

A taboo is a prohibition or a prohibited action. In the Tiv traditional religion, breaking of a taboo is followed by supernatural penalty or punishment meted out by human beings (Kanu 2013, 2015). Taboos may be sanctioned by *akombo* through intermediaries. Some taboos are sanctioned by elders and ancestors.

The Tiv and their Religion

Tiv traditional religion is the religion of the Tiv people of North Central Nigeria. The Tiv have a complexity of traditional religious practices. These practices are anchored on three fundamental components expressed in accordance with their beliefs. The components include the belief in the existence of *Aondo* (Supreme Being), *Akombo* (divinities or deities), and the belief in *Tsav* (witchcraft or wizardry). Tiv traditional religious thought prior to the advent of Christianity was hinged on these three basic components all of which work together for stability, harmony and communal well being of the people.

The Belief in *Aondo* (Supreme Being)

Belief in *Aondo* is the greatest component of Tiv religion. Downes (1933) writes that:

Aondo is the Tiv name for the “above”, also, the firmament that has been described as the vault of heaven with its clouds and stars, its thunder and lightning, winds and rain, cold and heat and this was all that in the same terms as all phenomena as a non personal power (p.17).

This description above shows that the Tiv acknowledges, locates or associates their Supreme Being (*Aondo*) probably with the sky Being (God). Thus, all phenomena in the firmament including the movement of celestial bodies are seen as His (*Aondo*)

handiwork. He is clearly the architect of their being. Downes (1933) further states that:

This power from above was connected in the minds of the people with other powerful forces that affect the life of man, such as fire, iron and smilthy and so was superior to all other powers. The great unknown above is *Aondo*, which in popular allusions consists of iron, possibly because of meteorites. Here the sun arises, proceeds across the sky and sets; it is put in mortion by *Aondo*" (p.17).

The idea here alludes that apart from *Aondo*, the Tiv believe in the existence of lesser forces that are subjected to the supremacy of *Aondo*. *Aondo* has power over all other forces with whom they are interconnected. In the same way, everything that emanates from the sky above, on earth or under the earth is regarded as the expression of the power of *Aondo*.

Similarly, Dzurgba (2007) captures that *Aondo* is the Supreme Being. His size is indicated by the firmament and the earth. Torkula (2004) states that though *Aondo* is the Tiv word for God, the Tiv do not have a personal relationship with Him. There is, however, a deep acknowledgement of the hand of God (*Aondo*) in the physical setting as in rain (*Aondo ngu noon*), thunder (*Aondo ngukumen*) lightening (*Aondo ngu nyiar*) and sun light (*Aondo ta yange*). Atel (2004) acknowledges the patriarchal role of *Aondo* in Tiv society and further tried to identify Him as being masculine. He captures that, the Tiv believed in the existence of a Supreme Being called *Aondo* (God). *Aondo* is conceived as a male and so the Tiv refer to him as *Aondo Ter* (God Father or God the Father).

In Tiv religion also, there are various attributes to *Aondo* in spite of the uncertainties surrounding the knowledge of his real nature. For instance, Shishima and Dzurgba (2012) identifies

some of these attributes to include: *Aondo* (God) is the Creator, *Aondo* is Omnipotent, *Aondo* is Immortal, *Aondo* is Transcendent, *Aondo* is Omnipresent, and that *Aondo* is Omniscient. *Aondo* in Tiv religion is a personal being, a conscious being, who knows everything and can reason; He decides, guides and directs the universe according to His inscrutable purposes. By His divine providence, He directs the destiny of every person, even down to the least creature in the world. More than this, however, Tiv people believe that goodness, love, kindness and mercy are other essential attributes of *Aondo*. Only things, which are good, pure, and noble, can be, and are attributed to *Aondo* (God).

***Akombo* (deities)**

The second component of Tiv traditional religious worldview is the *Akombo* (deities or divinities). It is believed that while *Aondo* is at the apex on the hierarchy, *Akombo* is next. In this regard, it is regarded as intermediary gods and deities that operate or regulate between *Aondo* and men. *Akombo* is a very complex phenomenon. Rupert (2003) maintains that, the origin of the *Akombo* practices amongst the Tiv is very old. In the Tiv ontological order, *Akombo* appears to be the most interactive force that catches the glimpse of everyone. *Akombo* are the mystical forces that are found both in the animate and inanimate beings. Since they are forces in spiritual nature, their presence is only witnessed in their various manifestations in nature.

Wegh and Moti (2001) remarks that the Tiv believe that the natural order should function for the good of man, the land as well as the women should be fertile, and human beings should enjoy good health and fortune. To this end, *Aondo* has given man *Akombo* (cosmic- natural forces). *Akombo* are the mystical forces represented in cultic emblems. They are neutral force beings reproductive as well as destructive the objects that constitute these emblems are part of the material culture, and include

pieces of pottery, feathers, and bones of animals (human) or carved images. Utov and Ioratim- Uba (2008) disagree with the submission that God created *Akombo* and handed to man for regulating social order. According to them, *Akombo* was not created by God and, therefore, have no connection with him; hence for them this might be a pre-Christian belief or practice.

According to Torkula (2004), the Tiv see *Akombo* in two major categories, namely; *Akombo a kiriki* (lesser *Akombo*) and *Akombo atamen* (greater *Akombo*). Each ailment and socio-economic component in society has its *kombo* with full compliments of emblems and a structured process of “restoration” (*sorun*) when its foundation is undermined or violated by people who come into contact with it. Each *kombo* has its master whose specialty is in ensuring a viable role for the *kombo* in the community. He does this by “restoring” (*sorun*) the *kombo*'s equilibrium if and when it is violated, thus, neutralising the damage that would otherwise have been visited on the violator or even the whole community as the case may be.

Torkula (2004) adds that *Akombo* in Tiv religion is a weapon in the hands of the elders to regulate the behaviour of members of the community. It is believed to have supernatural powers, and is used to enforce decisions, ensure societal cohesion and punishment against offenders. *Akombo* or divinity as a cosmic force or power ensures peace, good health, fertility of the soil and of women. *Akombo* is believed to create wealth and its socio-political and economic importance lie in its application which ensures the stability of the society. *Akombo* also checks crime in respect of protected properties or farm produce (pp.12-13). Although this perception may neither completely convey the significance of *Akombo* in Tiv religion nor exhaustively assert its uses, it is important to note that, it can be harnessed and used for different purposes, both good and bad.

***Tsav* (Witchcraft or Wizardry)**

Tsav is a cosmic potency internalized in man as part of his personality (Torkula, 2004). Gundu (1980) admits that it manifests in people in three forms namely; the most potent form, the dwarf (*Kpum utsa*) and 'ishima i nomsoor' (a man's heart) by the Tiv. Those who possess *tsav* are called *Mbatsav* (singular is *Ormbatsav*) and their activities are theoretically geared towards good governance (*tar soron*), personal comfort, security and communal well-being. Practically, however, the extent to which any *ormbatsav* can be beneficial to society in the context of his activities is a factor of the type of *tsav* "growing" on his heart and particular *akombo* being manipulated at the point in time. This is probably why Bohannan (1967) argues that *tsav* is morally neutral and can be deployed for either good or bad. If deployed for good, society is assured of a potent social control mechanism. On the other hand, if it is deployed for evil individuals can be bewitched leading to sicknesses and sometimes deaths. According to Orbunde (2021) other malevolent aspects include crop failure, dreadful dreams, misfortune, barrenness, and the like. He adds that, *Tsav* is also believed to be a medium through which the *Mbatsav* execute their victims.

In Tiv traditional religion, it is believed that people die as a result of evil manipulations through *tsav*. Abanyam (2016) remarks that though, death is a universal human experience, the response it elicits is shaped by the attitudes that are prevalent in a given culture. The Tiv people believe that death is caused. Every death (*ku*) is regarded as unnatural occurrence. Even when it results from accident injuries or wounds sustained in battle, the proximate cause may be clear, but the ultimate cause can be questioned? Explaining one's death in *Tiv* society requires looking for supernatural causes. Thus, Torkula (2004) explains that there is no clear theory of natural death among the Tiv people. Hence, it is believed that death results from the

intervention of an outside agent. In order words, in Tiv worldview, nobody dies unless his death is influenced by *mbatsav* (witches).

Tiv Religious Taboos and Need for a Thriving Eco-System

The importance of the eco-system to the human society cannot be overemphasized. Its relevance becomes even more glaring following the consequences of its recent continuous depletion. Atungwa (2021) admits that there is a troubling observable environmental crisis in Tivland where several species of plants are fast disappearing. Human activities leading to the mismanagement of the ecosystem constitute a potential ecological danger to life on earth. Flora and fauna and their habitats are fast vanishing. There is increasing paucity of aqua life as there is a decline in fishes in rivers, streams and ponds. Terkaa (2021) decries that even some low life creatures like crickets and edible caterpillars among many others are increasingly becoming scarce. Tondo (2021) adds that water bodies such as ponds, streams and rivers that formally preserved water all year round no longer has the capacity to do so. The climatic condition seems to have changed drastically as the scorchy sun, average temperature and dryness seems to have increased significantly.

According to Orbunde (2021), the problem observed in the eco-system is largely due to several environmental factors such as urbanisation, human population explosion, unrestrained pastoral and nomadic activities, negligent and unconstrained deforestation, hunting, fishing and bush burning as well as wasteful methods of farming that put trees and game animals to destruction. Amase (2021) corroborates that human activities in the globalized system have caused several environmental damages and degradation to the eco-system. Mining activities, deforestation and unhealthy agricultural practices in Benue State

have caused a lot of damage to the society. Thus, the weather conditions have become asymmetrical; hence, the experience of flooding and drought becomes regular. The occurrence of floods and droughts are followed by poor crops yield; and the disappearance of plants and trees creates difficulties for animal survival.

Meanwhile, prior to the advent of western civilization and Christianity, the Tiv had eco-spirituality that helped them in managing the ecosystem. This is a fundamental belief in the sacredness of nature, life, earth, and the universe. Ecological consciousness was key to the Tiv Traditional Religion which had placed taboos for environmental preservation. Amase (2021) admits that issues of ecological preservation are commonly found among Tiv ancient mythologies; hence legends and folklores have shown to be good resource materials for Tiv religious ecological studies. Among the symbols used in the narration of myths are *Aondo*, (the Supreme deity), *Akombo* (deities), spirits, *Tsav* (mystical forces) and the ancestors.

Preservation of the eco-system is at the heart of Tiv Traditional Religion. This can be observed in the manner in which the Tiv relate with nature. This can also be observed in their rituals, symbolic actions, taboos and religious practices. Efforts at preservation of the eco-system are geared towards key understanding of the vital force. The whole idea of vital force is about life, the strengthening and improvement of life. All activities are geared towards this improvement, strengthening and protection of life. Symbolic items and actions are employed to exhibit such inner human longing and struggle. The symbolic items and actions employed in this human struggle come in many forms as ritual tools of religious practice. For instance, Abya (2005) explains that it is a taboo to kill or harm the green snake, *ikyarem*. When it is mistakenly killed or found dead it is

buried with respect. The reason for this is that this snake had saved the nation during their flight from their assailants.

Atungwa (2021) affirms that, the Tiv traditional religion provides no room for the mmismangement or over exploitation of the environment. This is because; almost everything in the eco-system as it were is either divinized or protected by religious taboos. The taboos are enforced in the name of religious observance and for the reasons that such elements protected by taboos are either of historical importance, or are the dwelling places of *Ujijingi* (spirits) or mystical forces. This coincides with Mbiti who held that in many places in Africa, “it is held that the land of the departed is in the woods, forests, river banks, or hills somewhere in the country; such places are therefore often avoided” (Mbiti 1975, p.117). According to Awolalu and Dopamu (1979), whatever people consider as the home of spirit is usually set apart as a sacred place, and there people offer worship to the particular spirit.

Similarly, Orbunde (2021), Tondo (2021) and Terkaa (2021) agree that the Tiv forbid indiscriminate felling of trees, entrance to certain forests, and bush burning. Some trees, animals and various rivers and mountains are used as sacraments of divinities. According to Amase (2021), this was to avoid burning down medicinal plants species and destroying of animal habitats. These have shown clearly that the Tiv had strong taboos and restrictions for the preservation of the eco-system. The hanging of *Akombo* emblems meant to deter thieves is another way to preserve plants, especially crops. For Abanyam (2011), the *Tiv* people believe that men with supernatural powers that hang such emblems can afflict their victims with disease, which often are incurable through conventional therapies. Sickneses like *Igbe* (Diarrhoea) for example can be inflicted on a victim that may result to death.

Conclusion

The paper analyzed the role of Tiv Traditional religious taboos in the preservation of the eco-system. It was argued that survival requirements of both the earth's natural environment and the human community are reciprocal consequent of human interactions with and activities on the planet earth. Human unsustainable and irresponsible ecological activities on the planet earth have become increasingly troubling. The over-exploitation of the earth's resources has, among other things, put some animal and plant species at the danger of extinction. This is possible given the destruction of valuable vegetation, pollution of the hydrosphere, atmosphere and the lithosphere. The results of these as already mentioned above include desertification due to deforestation without afforestation, global warming, flooding and earthquakes which reportedly result from economic and geological activities like mining. The paper argues that Tiv traditional religious practices of preservation of the environment adequately provided cover for the eco-system and hence, should be revisited and encouraged.

References

- Abanyam, N. L. (2016). "The Concept of Death and its Implications among the *Tiv* People of Central Nigeria" pdf, Accessed 24 April.
- Abya, A., (2005), *Debate on Tiv Origin, Migrations and the Ikyarem Concept*. Makurdi: Jesus Power Good News Books.
- Amonum, J.I. (2017) "The Role of Customs and Taboos in the Conservation of Agogo Pond in Chito Stream in Ukum Local Government Area of Benue state" *School of Agriculture and Agricultural Technology, The Federal University of Technology, Akure, Nigeria*. Volume 22, No. 2, 166-172,
- Atel, E. T. (2004). *Dynamics of Tiv Religion and Culture: A Philosophical-Theological Perspective*. Lagos: Free Enterprise Publications.
- Awolalu, J. O., and Dopamu, P.A., (1979), *West African Traditional Religion*. Ibadan: Onibonoje Press
- Bohannan, L. (1967). "Political Aspect of Tiv social Organization" in J. Milddleton and D. Tait (eds) *Tribes without Rulers: Studies in Africans Segmentary System*. London: Routedledge and Kegan Paul Ltd.
- Downes, R.M. (1933) *The Tiv Tribe*, Government Printer, Kaduna.
- Dzurgba, A, (2007). *On the Tiv of Central Nigeria: A Cultural Perspective*. Ibadan: John Archers Publishers.
- Kanu, I. A. (2013). The Dimensions of African Cosmology. *Filosofia Theoretica: Journal of African Philosophy, Culture and Religion*. 2. 2. 533-555.
- Kanu, I. A. (2015a). *A hermeneutic approach to African Traditional Religion, philosophy and theology*. Augustinian Publications: Nigeria
- Kanu, I. A. (2015b). *African philosophy: An ontologico-existential approach to classical and contemporary issues*. Augustinian Publications: Nigeria

- Mbiti, J. S., (1975), *Introduction to African Religion*. Ibadan: Heinemann
- Rupert, E. (2003). *Akiga's Story: The Tiv Tribe as seen by one of its Members*. Ibadan: Caltop Publications.
- Shishima, S.D and Dzurgba, A.(2012). *Introduction to African Traditional Religion*. Abuja: National Open University of Nigeria.
- Torkula, A.A. (2004). *Death and burial customs of the Tiv people of Central Nigeria*. Jos: Midland Press Ltd.
- Wegh, F.S and Moti, J.S. (2001). *The Encounter Between Tiv Religion and Christianity*. Enugu: Snaap Press Limited.

ORAL INTERVIEWS

S/N	NAME	AGE	OCCUPATION	DATE	GENDER
1	ATUNGWA TORHEE	70	Farmer	12/8/2021	Male
2	TERKAA AKPERASHI	65	Veteran	14/8/2021	Male
3	TONDO ALABAA	68	Traditional Chief	17/9/2021	Male
4	AMASE ALUUMA	58	Retiree	17/8/2021	Female
5	ORBUNDE TEMIMONGO	72	Farmer	22/8/2021	Male

Chapter Seventeen

AFROECOLOGY OF TRADITIONAL AFRICAN SOCIETIES: AN ANTHROPOLOGY OF ECOTHEOLOGY, ECOPHILOSOPHY AND ECOSPIRITUALITY OF THE YORUBA

Paul-Kolade Tubi, PhD

*Department of Archaeology and Museum Studies,
Federal University Lokoja
paul.tubi@fulokoja.edu.ng*

Executive Summary

The study offers an anthropological perspective on aspects of afroecology of traditional African societies, using the Yoruba as a case study. Data indicate that the world is facing immense ecological crises and that unbridled human activities have aggravated environmental destruction to a dangerous scale. However, not much study has focused on afroecology and its dimensions of ecospirituality, ecophilosophy and ecotheology. This study offers traditional African approach to ecological sustenance. Methodologically, the study is based on ethnographic fieldwork among traditional communities of the Yoruba, which have maintained critical aspects of autochthonous culture. Findings show that contemporary African societies are bedevilled by monumental ecological problems and as a result have lost large swath of their environment to the assaults of foreign imposed technologies and philosophies. The problem is compounded by westernization, globalization, *sinocism* (Chinese influence) and influence of foreign religion which imposed consumerist philosophy on the

people. This study provides scholarly field-sourced approach to ameliorating the ecological crises that menace the world. The study is primed for its scholarship on the richness of the Yoruba in their response to the environment and its sustenance.

Keywords: Afroecology, Anthropology, Autochthonous communities, Ecological crises, Yoruba

Introduction

The prevalence of environmental disasters that emanate from desert encroachment, oil exploration, mining and quarrying, erosion, unmitigated pillage of earth's resources, unlimited degradation of the environment, which are compounded by and near-total annihilation of non-human species which present a dark reality for humanity and its survival has made afroecological studies to become imperative. The ecological menace according to Pope Francis (2019) is sin against humanity; Hufnagel (2020) and McDonagh (2010) identify it as horror of extinction, Taylor (2019) states that it is the major human dilemma of our time, while Tubi (2020) calls it ecocide.

This paper proffers that Africans possess authentic ancient pristine ecophilosophy, ecotheology and ecospirituality that are capable of providing explanation for the peoples' interconnectedness with their natural environment. Africans are highly rooted in their ecological milieus with rich earth-based spirituality and philosophy. As a result of this rootedness, autochthonous African communities have rich traditional ecological practices and beliefs which have sustained their cultural, religious and philosophical worldviews with high degree of admiration in the past. However, the advent of foreign influence has caused immense cultural shocks to these communities, and the once hallowed ecological underpinnings of their culture have been bastardised, uprooted, obliterated,

diluted and compromised, (Olaniyan, 2003; Oyewole, 2003; Tubi, 2020). It is incumbent on scholars to critically examine, understand and document aspects of these afroecological practices and beliefs before they are completely lost to westernisation, globalization and *sinocism*.

Location and Peoples of Yorubaland

The Yoruba are groups of autochthonous people living in western parts of Africa. They are found in Benin Republic, Federal Republic of Nigeria and Togo Republic. They traditionally call themselves *Omo karo*, *ojire* and *Omo Oodua*. The ideal Yoruba person is qualified as *omoluabi* (quintessential person). They form one of the largest ethnic groups in sub-Saharan Africa. They speak dialects such as Awori, Ekiti, Egba, Ibolu, Ijebu, Oyo, Igbomina, Okun etc, of the same language called Yoruba. Popular oral tradition among the people acknowledged that they were descendants of a strong personality called Oduduwa, who gave identity to their culture. Their origin revolved around Ile Ife, which is acclaimed as the “source of creation” where *Olodumare* the Supreme Deity began the creation of the world, (Kanu 2015a&b, Fadipe, 1991; Idowu 1994). Their rich culture and traditions have survived onslaughts of foreign influence and perhaps they might be the best ethnic group in Africa to have successfully preserved greater aspects of their pristine culture among others.

Ethnographic insertion

The study is an ethnography of traditional ecological practices and beliefs of the Yoruba. Ethnography is here defined as scientific field observation and description of cultures, behaviours and tenets of customs. It is an active field qualitative research which involves direct insertion and participation-observation. It aims to make cultures “speak” directly to the

researcher and the world, by eliminating the biases, prejudices and opinions of the researcher. Ethnography is a veritable form of culture-speaking and culture-writing.

The study adopts ethnography which offers a field-sourced anthropological perspective of Afroecology. The study focuses on some communities which are primed for maintaining critical aspects of their pristine culture to a high degree in the face of massive onslaught of foreign influence. Tubi (2015) has described ethnography as the most relevant methodology for researching into traditional communities. This involved personal visits to communities to notice human-environment interactions, document ecological disasters, and interview aged informants and acclaimed informed personae such as *olode* (hunters), *aworo* (chief priests) and *agbe* (farmers) who are abreast with the changing fortunes of the environment in their locales.

Global Ecological Crises

The world is inundated with severe ecological crises. Studies point to alarming ecological disastrous activities that are taking place across the globe such as deforestation, oil spoilage, excessive mining of earth natural resources, near extinction of nonhuman species, oceanic acidification, despoliation of the earth, air pollution, global warming, depletion of the ozone layer, acid rain, etc (Aptekar, 1994; Hufnagel, 2018, 2020; McDonagh, 2010). The assemblage of world scientists has been giving regular warnings on ecological crisis of the world. The latest of July 28, 2021 offers a cataclysmic ecological horror as they identified several planetary vital signs of environmental destruction, (<https://academic.oup.com/bioscience/climate-warning>). Similarly, the United Nations (UN) in September 2021, calls on the world to come together to radically effect the way human beings are damaging the earth, (<https://news.un.org>).

Recently, Pope Francis (2019), the Catholic pontiff, observes that humanity is facing a frightening exploitation of creation, both persons and environment and he describes the scenario as sinful. Pope John Paul II (1990), sees ecological crisis as a common affront to all humanity. Pope Benedictus (2009, 2010), gave several ecocentric homilies in which he drew attention of humanity to the global ruins and devastation bedevilling the planet. McDonagh (2004, 2010) argues that environmental degradation affects all humanity and Aptekar (1994), argues that humanity is menacingly facing the scourge of degradation and Hufnagel (2020) presents data on global ecological crises of immense proportion that have the capacity to wipe all beings off the earth.

Traditional societies of the world, are frontally confronted with ecological challenges like other parts of the world. Shehu (2017), and Tubi (2020), provide a close study of African situation with their focal discussions of the sociological, archaeological and anthropological dimensions of ecological crises respectively. Scholars like Shettima (1997), Olaniyan (2003) and Oyewole (2003) have provided insights into ecological issues in traditional African communities by exploring aspects of environmental management, cultural response and demographic challenges occasioned by ecological crises.

Afroecology of the Yoruba

This paper defines Afroecology as an integration of studies which seeks to recover indigenous African environmental practices, document traditional ecological practices and the re-evaluate African's autochthonous relationship with the natural environment. Afroecology has the capacity to enhance earth's sustainability and its management. It provides basic earth-based approaches to soil management and it stimulates eco-friendly

methodology for human-environment relationships. In addition, it is capable of furnishing scholars with the needed data and knowledge of the past ecological practices of African communities.

Due to pervading imposition of foreign influence, Africa is massively losing an irreplaceable amount of its natural ecological system, (Tubi, 2020). Having come under the severe shocks of doses of globalization, westernization and *sinocism*, the continent and its natural resources have been severely despoiled. It is therefore incumbent on African scholars to thoroughly engage in afroecological studies.

In assessing the Yoruba and the ecological dimensions of their beliefs and practices, the prime of place goes to their culture which admirably evolved a unique society where philosophy, spirituality, and religion are interbred with ecology present a deeply rooted afroecology. Scholars observe that The Yoruba possess a deep anthropological understanding of the whole gamut of ecology, in which there exists a delicate interconnection between persons, philosophy, religion, and natural environment, (Fasina, 1991; Idowu, 1994; Olaniyan, 2003; Oyewole, 2003). The study observes that the Yoruba “communicates” with the environment because it is treated as a being. The earth “speaks”, trees “talks”, hills “laughs”, the sky “cries”, animals “mourn”, grass “sleeps”, etc., in their anthropomorphic understanding of the world of natural order.

The Yoruba, like all traditional communities of Africa, have rich ecological understanding of their environment in relation to human positions in the ecosystem, (Olaniyan, 2003; Oyewole, 2003, Tubi, 2020). Within the realm of anthropological perspectives of Afroecology, this study identifies three important pointers to the close nexus between ecology and

human beings within Yoruba cultural milieu namely (a) ecotheology, (b) ecospirituality and (c) ecophilosophy.

(a) Ecotheology of the Yoruba

Ecotheology (ecology and theology), is the study of a given people's religious concept of, and their interconnectedness with the natural environment and everything in it. Ecotheology provides a detailed study of the interconnectedness of the ecosystem, its problems, management and sustainability in relation to humans, and their religious beliefs. The Yoruba possess a rich traditional ecotheology (Fasina, 1991; Idowu, 1991; Tubi, 2020). The indigenous concept and relationship of the Yoruba to their environment and the response to it, emanate from their religious beliefs. Thus, their theology influences their interaction with the natural environment. Among the Yoruba speaking peoples, *oro* (traditional religious system) has clearly marked out ecotheological dimensions.

The creation story of the Yoruba also portends ecotheological background. The story relates how *Olodumare* (Supreme Deity) sent Oduduwa, the progenitor of the Yoruba with sixteen assistants to form the earth. Using a snail's shell full of soil and a giant bird, the soil was poured at a spot now called Ile Ife, while the bird scattered the sand haphazardly. *Olodumare* eventually sent human beings to dwell on the earth. The second story also revolves around *Olodumare*, who sent *Obatala* with a bird and chameleon to build up the surface of the earth at a spot now called Ile Ife. The bird and chameleon spread the sand as best as they could which formed the surface of the earth. After this, *Obatala* and *Orunmila* were sent to administer the earth. To populate the earth, *Olodumare* sent other persons to join them, (Ajakaiye, personal communication; Akande, personal communication; Oju, personal communication).

In the story the prime of place is ecologically aligned with *Olodumare*, human beings and other elements of the planet acting in synergy. Ile Ife is central to the emergence of the earth and human beings. Animals played active parts with human beings in creating the world. These stories carry immense ecotheological backgrounds. The emphasis for this study is that *Olodumare*, being the creator, is construed as the ultimate Source of creating animals, plants, physical features, water bodies, and human beings. In creation, *Olodumare* deployed the omnipotence of his power at the service of all things on the planet. Creation, for the Yoruba, was not described as having a form of chaos as in the Bible (Genesis 1:1-3) that needed to be pacified. For the Yoruba, at the beginning of creation, *Olodumare* was actively in charge, directing and influencing the whole gamut of ecology. Ecotheologically speaking, in the traditional worldview of the Yoruba, human beings, deities, and nature were designed by *Eleda* (creator) to live together in mutuality within a given environment, such as Ile Ife, (Idowu, 1994).

The research notes that *oro* (traditional religion of the Yoruba) as conceived by the people, is the expression of the human relationship with deities and everything in nature. For this reason, there are numerous deities (*ebora, orisa*), which are aligned with the environment. In traditional Yoruba existential world, nature is divinised, so that natural elements such as sun, moon, stars, hills, rivers, trees and animals are animated with spirits and have divine aspects inherent in them. Because nature is divinised, the environment is respected, pampered, and cared for. Ancestral worship has strong ecotheological base as the accoutrements and paraphernalia of masquerades are environmentally sourced. Due to this fact the people hold the abuse of natural environment in total abhorrence, (Aina, personal communication; Olayemi, personal communication). Among the Yoruba, it was observed that taboos are attached to

natural environment to keep abusers away. Environmental-polluters are punished and restitution must be made to appease the deities, (Olaniyan, 2003, Oyewole, 2003; Tubi, 2020).

The study concludes that the crux of Yoruba's worldview is creationism that is deeply illustrated in strong ecotheological terms. In the creation story of the Yoruba there is a convergence of religion, society, and environment. Both came at the beginning and they are interwoven at the beginning of time and space. This has ecotheological implication. Human beings and the entirety of nature environment for the Yoruba are primarily conceived as creations made at the instance of *Olodumare* (Supreme Deity). The basic ecotheological underpinning of traditional Yoruba worldview lies behind the concept of creation by *Olodumare*, the Supreme Being. Their concept of the earth, the planet, and everything in general is based on creation, (Akande, personal communication; Obahun, personal communication).

Next, the study notices the usefulness of religion, philosophy and ecology playing useful roles for human beings as they are symbiotically related. The natural environment and human beings are useful to one another as they give meaning to the world. Also, since both originated at the same time, they are therefore destined to coexist forever. In the mind of the Yoruba, there will never be a time when any of these will cease to exist. Their worldview posits that all creations must necessarily coexist, (Arupe, personal communication; Ajiboye, personal communication). It is thus to be understood that as presented in the creation story, which conveys a great ecotheological lesson namely the creator does not desire the annihilation of a specie nor envisages the disruption of the world. *Olodumare* envisaged an alliance between human beings and other parts of creation. In the creation stories of the Yoruba, the lesson to be imbibed is that,

an ecotheological perception that accounts for the beginning of the universe and its sustenance is well demonstrated.

The researcher observes that creation is in turn interpreted ecotheologically by using four principles; anthropomorphism, apotheoses, deification/divinization and environmentalism. Anthropomorphism makes the Creator to have human attributes such that *Olodumare* has hands, speaks, makes decisions, sleeps, talks, and behaves like human beings. The principle of apotheoses makes humans to become divine beings, so as to be relevant among their families after death whence they are venerated as ancestors or deities (*orisa*). The principle of deification/divinization, makes natural elements to be considered as spiritualised beings possessing human attributes. The principle of environmentalism makes the deities and everything in nature to be aligned with and interpreted within the confines of the physical natural environment of Yorubaland. Due to the ecotheological underpinning of traditional Yoruba's worldview which is rooted in the principle of deification/divinization of nature, it is apropos to examine it in some detail. The principle means that the people see every part of creation as having a spiritual dimension. First of all, the three major constellations in the sky namely *orun* (sun), *osupa* (moon) and *irawo* (stars) are considered as deities. The people know that the sun marks the circle of the day and the moon determines the monthly circle. The stars reflect divine presence for the people. These three are seen as deities, but they so far removed from the people that do not receive concrete worship from the Yoruba people, (Akande, personal communication, Yakubu, personal communication). Apart from the three constellations, natural features like hills, rivers, and trees are considered as the personification of deities or are seen as the abode of deities and spirit beings. It is therefore apparent that divinization of nature features prominently in their culture as indicated in this study.

The divinization of nature by the people illustrates the relevance of ecotheology to traditional communities in Africa like the Yoruba.

It was observed that the concretization of deification/divinization of nature among the people is seen in the prevalence of nature-deities in all their communities, (Tubi, 2020). The cardinal nature-deities of Yorubaland are *ile* (ground/soil), *igi* (trees), *omi* (water), *oke* (hills) and *eranko* (animals).

(i) *Ile* (earth)

The Yoruba speaking people conceive the earth (*ile*) as one of the primary nature-deities. Land is the most prized possession of the people. The spirit of the lineage lives on in the land, even when leased for farming or housing. To be landless in a community means that such a person is not considered as an original settler and it makes one to be disadvantaged politically, socially, and economically. *Ile* is the deity of fecundity, life, progress, and wellbeing. *Ile* is the mother goddess that sustains human beings, animals, and spirits. Rituals are considered complete only when *ile* has received a portion. Libations are considered accepted when they touch the earth. Votive offerings are hallowed only after they have been accepted by the earth. *Ile* receives regular but the simplest forms of sacrifices, (Obahun, personal communication). At Ayedayo, an Okun community in Northeast Yorubaland, the researcher noticed a sacrifice made to *ile* by an aged man who poured clean water on the ground in the morning and said, "*Ile kowuro. Gba, mu*" (Earth, good morning. Take and drink). Earth also receives sundry forms of sacrifice and appeasement. For instance, connoisseurs would pour little wine on the ground for the earth to taste before they drink their wine, libations are poured on the ground for it to be accepted by the

deities, and blood of votive animals must touch the ground before the sacrifice can be considered as pleasing to the deities.

According to *aworo* (chief priest) Akande of Ogidi, the earth is also the final abode of humans. Funeral rites are closely associated with the earth. Earth burial/internment is the only appropriate method of corpse disposal among the Yoruba. It is the sum expression of their filial relationship with *ile* that makes it to be regarded as a mother and deity. The new yam festival, which is one of the primary festivities of the people, is the epitome of the peoples' expression of gratitude to *ile*. The new yam festival is the celebration of the motherhood of *ile*. Agriculture is primarily based on root crops and yam is the most significant of them all. Yam, as must be reiterated, is the extraordinaire crop of the Yoruba. It is the best gift of the earth. Other traditional farm produce of the earth include palm oil, groundnuts, beans, sorghum, and cassava, amongst others. They confirm their belief in *ile* with personal names like *Ilegbemi* (earth supports me), *Ilemuyiwa* (earth brings this) and *Ilegbayi* (earth receives this one) amongst other.

(ii) Igbo (forest)

One other aspect that indicates the close nexus between religion and the environment among the Yoruba, the study observes, is their particular attention to forests (*igbo*) and trees (*igi*) which they consider as abodes of spirits and deities. Forests are said to be inhabited by hundreds of inanimate spirits (*irunmole*). Among the people, in every community, forests are sometimes named after particular deities. Forests play important roles in their religious system and they have several sacred forests called *igbo irunmole* (forest of spirits), *igbo Oluwo* (forest of Oluwo), *igbo ebor* (forest of deities), amongst others, (Oju, personal communication; Yakubu, personal communication).

Also, the communities pay particular attention to some trees that are said to be the favourites of deities/spirits. Such would include *iroko*, mahogany, baobab, and silk cotton. There are three forms of association, which the Yoruba have with trees because they are considered useful for religious purposes. The first are trees, which are considered sacred and useful for religious purposes such as making masks for masquerades and some trees are valued because they are useful in making drums for traditional worship. Second are trees in market squares that are considered as abode of witches and wizards. In traditional Yoruba ecotheology and religious system, sacrifices which are made for peace, progress and tranquillity of the communities are offered around trees at market squares so as to ward evil and the calamitous effects of witches and wizards. Third, some huge trees are considered highly relevant because they are abodes of deities/spirits. The traditional way of identifying such trees is by seeing a piece of white cloth tied around the trunk. Apart from these strictly religious purposes, some trees are used for preventive and curative medicines, (Akande, personal communication, Obahun, personal communication). The people give expressions to this belief with personal names like *Igisore* (tree assisted me), *Iginla* (big tree), *Segilola* (rich wood seller), *Osegbemi* (Ose tree is my strength), amongst others.

(iii) Omi (water bodies)

Geographically, Yorubaland lies within an ecozone that is embedded within the Guinea Savannah and the forest zones of West Africa. It is characterised by two sharp distinct dry and wet seasons that run from early March/ April to September/October respectively. There are few important big rivers such as *Oya*, *Ohe/ose*, *Osun*, *Oyi*, *Ogun*. There are also streams and ponds found all over the area. The rivers and streams provide portable water and are used for other domestic purposes. They are also

the sources of fish for consumption. However, most of these are seasonal rivers and streams. Due to this factor, water has a high premium among the people. The geography of the area, which lacks all year-round abundant water, gives a clue to the reason why water is divinised among the people. In fact, drought is dreaded by the people so much so that to be accused of preventing rainfall is considered a serious offence in Yorubaland, (Adewumi, personal communication; Akande, personal communication).

Informants claim that river-spirits and naiads are acknowledged by the people and offered propitiations as part of their traditional rites, (Yakubu, personal communication). Ponds hold an important place in the supply of water for daily consumption of the people due to the fact that all rivers and streams are seasonal. Ponds are held sacrosanct and they must be placated lest they dry up. Fish in the ponds are considered as “children” of the deity, and as a result of this, fishing in ponds is prohibited. Some streams are considered sacred for their curative powers, some for childbirth, and some are considered as portents for success. The combination of these factors makes rivers/ponds to be propitiated and offered sundry sacrifices by the people. *Olokun* (river goddess) is worshipped as a principal deity in some communities, while generally all communities revere stream and ponds as places, which are inhabited by spirits. Water is primed by the people as can be seen in their personal names like *Omidina* (water stopped me), *Omipidan* (water causes havoc), *Omisore* (water helps), *Oyatola* (*Oya* river is wealth), *Osungbemi* (Osun river is my strength), *Omiyale* (flooding), amongst others.

(iv) Oke (hills)

The topography of Yorubaland comprises huge inselbergs, highlands, and hills amidst low plains. These natural endowments have ecotheological significance and have been

appropriated for religious purposes. These hills instil awesomeness and reverence on the locals, so it was not difficult for the people to associate them with religious ceremonies. Monoliths are used as shrines and effigies. Ethnographic fieldwork by Tubi (2015) reveals that this practice has antiquity among the people. Major Yoruba traditional deities are aligned to highlands, rock-overhangs, inselbergs, and monoliths. There is the prevalence of *oke eborá* (hill of deity) and *oke egun* (hill of masquerades) among the people, (Akande, personal communication, Oju, personal communication; Yakubu, personal communication). The hills, apart from their religious purposes, served as refuge sites during the pre-colonial interethnic wars. The study notices that the Yoruba place importance on hills by identifying themselves with names like *Okediji* (hill becomes a place of refuge), *Olokede* (owner of hill is here), *Okeyomi* (hill delivered me), *Okeniyi* (hill is precious) *Okesola* (hill gives wealth), and *Okedara* (hill is good).

(v) Eranko (animals)

Yorubaland has a variety of animals that thrive in the environment. The landmass offers an extensive assemblage of animals, which has been given religious interpretation to form part of the pantheons. Two types of animals of ecotheological relevance are noticeable and for this ethnographic study are classified into theriomorphic animals and totemic animals. This study identifies theriomorphic animals as those which are divinised and are considered as sacred. In the tradition of the Yoruba people, such animals are considered as direct manifestation of deities. All communities have theriomorphic animals like monkeys, crocodiles, snakes/pythons, etc. To these can be added fishes and birds, which are objects of worship and are offered sacrifices. Totemic animals are those that are aligned to the various component lineages or families. Totems are

animals that a group of people adopt as emblems of their lineages. Among the Yoruba, totems form integral identity of lineages and are mentioned in their *oriki* (cognomen/praise name). A lineage which is aligned with a particular totem is forbidden from harming, killing or eating parts of the animal, (Adewumi, personal communication, Obahun, personal communication). The Yoruba concretise their belief about divinised animals with personal names like *Ajanaku* (elephant), *Angulu* (vulture), *Erin* (elephant), *Ekun* (leopard), *Igunu* (eagle), etc.

(b) Ecospirituality of the Yoruba

Ecospirituality (ecology and spirituality) is here defined as a particular form of spiritual expression which is aligned with natural environment. The Yoruba people have a concrete expression of ecospirituality. Ecospirituality of the Yoruba indicate the essence and profundity of their communal spirit. The research discovers that their ecospirituality is concretised by the enactment of certain *eewo* (taboos) that are meant to preserve the environment and life in general. An *eewo* is a prohibitive act in respect of a place, person, or thing so as to regulate human behaviour, maintain equilibrium in interpersonal relationships and nature. Taboos are cultural prohibitions instituted for social control and are vitally important and relevant in Yoruba's socio-religious system. They serve as transmitters of moral values and are preservers of a traditional community's moral precepts (Omobola 221). As moral agents, taboos also curb anti-social behaviours. Taboos among the people serve as agents of socialization because whatever one does affects the welfare of the community and the environment.

It was observed that taboos have serious ecospiritual import for the study of traditional societies like the Yoruba. Their relevance in maintaining a balanced ecosystem in traditional communities

cannot be overstressed. They exact great significance in the communities and they exhibit a grandeur of the traditional ecological respect with which the local people treat the environment. These show the nexus between society, religion and ecology of traditional society, which unfortunately have come under the throes of modernization and foreign religions and as a result are on the verge of total obliteration. Thus, in traditional communities of the Yoruba, what is considered as *eewo* is perceived as having the role of preventing inherent danger to the life of the community and the environment. Therefore, purifications, appeasements, and ritual cleansings are necessary rites performed by violators of taboos, (Joledo, personal communication; Oju, personal communication).

Among the people, the study notices that there are taboos on various aspects of life. There are taboos on morals and crime control, on protection of life, on the preservation of the environment, on chieftaincy issues, on matrimony, and on agriculture, amongst others. Some specifics include the followings; it is a taboo to kill fish in ponds which are sources of water in dry season, it is a taboo to eat new yam before the celebration of the new yam festival where the necessary appeasement is made to the earth-goddess, and it is an abomination to deliberately kill an animal which is nursing its kids. These can also be included: invasion of sacred forest, maiming or killing of totemic animals, etc. The study examines few taboos in the society-religion-environment relationships that have immediate relevance to this discourse, which are aquatic taboos, agricultural taboos, animal taboos, forest taboos, and totemic taboos, (Adewumi, personal communication, Akande, personal communication).

(i) Aquatic taboos

Water is an essential commodity among the Yoruba people. Water itself is hallowed and thus various sources of water are guarded. Due to the location of Yorubaland, it has steady rainfall for only 5/6 months in a year. The remaining months of the year are without rainfall or spatial rainfall. There is overflow of water in the rainy season, but the people eke water in the dry season, especially in the northern parts of Yorubaland. They sometimes go far into the bush and hills to find portable water in the dry season. Most of the rivers and streams are seasonal except few like Osun, Oya, and Ogun amongst few. Water bodies such as streams, and ponds are the main sources of portable water, fish, and other aquatic creatures for human consumption and they dry up at the peak of the yearly dry season. There are several cisterns in all the communities that also supply steady water to the people. Due to these ecological factors, water sources are hallowed by the people and treated with great care.

To have water throughout the year and specially to salvage water in the throes of dry season, the people enacted series of marine taboos that are meant to conserve, purify, and ensure regular water supply. They enacted several taboos on the approach of water sources, methods of fetching water, and human interaction with water bodies in general to safeguard the supply of clean water for the community. Field study shows that in some cases, particular ponds or streams are approached with barefoot while in some cases it is a taboo to catch fish in ponds, which are sources of water in dry season. Chief priest Akande, (personal communication) and Obahun, (personal communication), an aged informant, revealed, it is believed that these fishes are “children” of the deities of the ponds, and killing the fish will make the ponds to dry up and consequently put the people at the risk of thirst. Another taboo is that it is forbidden to pour harmful chemicals like gamalin, izal and other powerful

insecticides into water sources as means of fishing. Defaulters are dealt with by heavy imposition of fines and persistent defaulters might be banished from the town. These taboos are important because they protect the sources of the communities' water supply from pollution.

(ii) Agricultural taboos

The Yoruba people are primed as farmers. Subsistence farming still predominates among the people. Though there are other occupations like hunting, cobbling, weaving, brewing, and smithing, yet, these are adjuncts to farming. They rely heavily on the benevolence of nature to have maximum produce from their farms. In a community where farming depends largely on traditional methods of farming with hoes and machetes, the people are very careful with their agricultural practices, soil management, and forest preservation. A period of poor crop yield means a time of starvation for the people. Low crop yield implies hunger for them. Thus, to have fertile arable soil and bumper harvest, the people designed some taboos on agriculture, (Adewumi, personal communication; Obahun, personal communication; Oju, personal communication).

There are specific taboos placed on farming and harvesting of crops among the people. The best illustration is associated with the New Yam. *Usu/Isu*, (yam) is the *extraordinaire* crop of the Yoruba. The people cultivate several types of yams. These are divided into six types: *olo* (yellow yam), *isu funfun* (white yam), *ehuru* (bitter yam), *ewura* (water yam), *omino* (aerial yam) and *koko* (koko yam). The white yam is the most preferred type. Ethnographic study among the northeastern Yoruba by Tubi (2015), notes that they cultivate a dozen of subtypes of white yam such as *ewusu*, *kege*, *okumodo*, *aga*, *anilokoja*, *oloka*, *ogunmole*, *boki*, *sebukere*, *awala*, *lolo*, and *ipe*.

There are four ecospiritualised rites that are associated with new yams, which are held sacrosanct among the people. These are rite of planting, rite of harvesting, rite of eating and rite of celebration, (Aina; personal communication; Obahun, personal communication,; Yakubu, personal communication). Each of these rites are carefully marked. The rites of planting begin with bush clearing, making of heaps, and tending the plants. Rites of harvest comes next. The hardworking farmer must not harvest any of his yam produce before the community has performed the rite of the new yam festival (*odun isu tuntun*). Thus, it is a taboo to eat new yam before the celebration of the new yam festival where the whole community makes the necessary appeasement to the earth-goddess. No one is permitted to bring new yams into the community before the celebration of *odun isu tuntun* by the entire community and thereafter yams can be brought into the community at will. People are not allowed to bring new yams to the market for sale until after the celebration of the new yam festival. Finally, the rites of eating and celebrating yam, which form one celebration. In this, the pride of place goes to the king, who eats the first yam. Those who break the taboos are ostracised. Informants said that the reason for the taboos on new yam is to enhance community celebration and engender communal spirit.

(iii) Taboos on animal life

The Yoruba also have taboos that are associated with the protection of animal lives, (Adewumi, personal communication). The study discovers that among the people, it is forbidden for one to kill animals indiscriminately because the locals know the need to balance the traditional ecosystem. In fact, it is an abomination to deliberately kill a female domesticated animal which is nursing its kid(s). When wild games are caught, the kids are not killed, unless inadvertently, but are left to go away or they are nursed by the hunters. Birds are hunted by the people,

but there are rules governing the hunting of birds. Birds are not killed with their hatched kittens. One may pick up eggs of birds for rearing or consumption, but when they are hatched, the kittens are not killed but nursed or allowed to roam away. It is said that defaulters will grow beaks like birds. This cannot be confirmed as all taboos are meant to teach moral lessons and not to be accepted as scientific truths.

(iv) Taboos on forests and trees

There are taboos associated with forests. The land is divided into *aluju/ofe* (open grassland), *akuro* (waterlogged), *igbo* (forest) and *aginju* (thick forest). Their ecological condition produces forested areas within the region, which are useful for agricultural, religious, economic, and social purposes. For these reasons, forests are protected with taboos, which curb excessive foraging into them. Religiously, thick forests are conceived as the abodes of (*iwin*) spirits by the Yoruba people, and for this reason, some forests are specifically reserved for religious purposes. Among the Yoruba in general, it was noticed that terms such as *igbo Olodumare*, *igbo Irunmole* and *igbo Iwin* are used to describe the untouchability of some forests which have been dedicated for religious purposes and such groves are forbidden to the public. Thus, the recent invasion of sacred forests by herders and lumber contractors has become worrisome to the locals who viewed this as a grave form of desecration. The forests provide sources of hunting, farming especially cash crop plantations and potent herbs, (Akande, personal communication; Oju, personal communication).

Apart from forests, some important trees are considered as having spiritual benefits to the community such as *ayun* (used for making drums), which is considered as beloved by the deities. Furthermore, some isolated big trees are held sacrosanct

within the communities such as those at the market squares that the people hold as abodes of such spirit beings like witches and wizards. In addition to these are some big trees, which are held as spots of sacrifice for particular deities. The folks easily identify such trees because the traditional priests always mark out such trees by tying palm on them or by tying white cloth around them. It is considered an abomination to cut down such trees, Adewumi, personal communication; Obahun, personal communication).

(v) Totemic taboos

This refers to taboos on sacred animals that are aligned with lineages or group of people. Important part of the tradition of the Yoruba which enriches their ecospirituality is the enactment of taboos placed on animals that are considered sacred with totemic importance. There are two degrees of totemic animals among the people; first degree refer to totems held by the whole community and the second are held by lineages. Totems are held as sacred beings that must not be harmed or maimed, killed or eaten. Among the Yoruba, the maiming, killing or eating of totemic animals or fish is considered an abomination, (Adewumi, personal communication; Oju, personal communication; Yakubu, personal communication). The identification of totems among the Yoruba is indicated in the *oriki* (cognomen) of the lineage or communities.

The Ecophilosophy of the Yoruba

Ecophilosophy (ecology and philosophy) is the philosophical reflection of a group of people on their natural environment. Ecophilosophy plays important roles in the lives of the Yoruba people. Data from this study show that ecophilosophy plays three great importance roles; it provides cultural identity to the people; it strengthens their social organisation and it forms the basis for their ethical norms and morality.

(i) It gives cultural Identity

The ecophilosophy of the Yoruba forms part of the basic cultural identity of the people. Their beliefs and practices give meaning to their “Yorubanness”. This study identifies that ecophilosophical elements permeate their cultural identity such as the general acceptance of *ile Oduduwa* (land of Oduduwa) as incorporating Yorubaland and peoples, and the believe in their pantheons, which are unique to them. Rivers in Yorubaland have indigenous name, hills are named by dialects and forests are so named by indigenous nomenclatures, Aina, personal communication). As this study shows Yoruba deities are peculiar to them and they are conceived as specifically made for them by the Creator. Thus, their ecophilosophy greatly enhances their Yoruba identity.

(ii) It provides Social Organisation

Another major impact of ecophilosophy of the Yoruba is that its forms part of the basis of their social organisation. The notion of life which is engrained within their culture derived from their ecophilosophy which identifies interactions of human and non-human beings as constituents of the created order. Their social organisation is conceived as binary oppositions in line with structuralism, in which human and non-human, male and female, sacred and mundane are acknowledged in nature, (Olayemi, personal communication). These binaries define the social roles and cultural limitations of all individuals and material things in Yoruba culture. By the nature of Yoruba’s ecophilosophy, their social organisation, inter-human relationships and interconnectedness with the natural environment are ordered for total synergy.

(iii) It provides foundation of ethics and morality

The ethical norms and morality of the Yoruba are largely defined and sustained by their ecophilosophy. This study discovers that ecophilosophy gives legitimization to their culturally imposed taboos and enactment of abominations about the environment. Without ecophilosophy and its sanctions, moral issues about non-human lives will be treated with levity and will be less effective. For the Yoruba people, their philosophy of life in general offers the basis for moralising and sustaining ethical behaviours which upholds the dignity of human beings and non-human beings in nature, (Oju, personal communication).

Conclusion

The study concludes that afroecology offers a synthesis of the study of human-environment interconnectedness within African milieu. It shows the richness of human-nonhuman relationships in Africa. The study of the Yoruba showcases the combination of religiosity, spirituality and philosophy as intertwined within traditional societies of Africa. The study observes that traditional African societies have great respect for the environment and that this derives from their hallowed pristine tradition of communicating with the environment as a being. In the face of mounting and unremitting ecological crises that is bedevilling the world, traditional communities like the Yoruba offer some pristine methodologies for ameliorating the menace.

As humanity totters along the path of extinction, it is recommended that the adoption of being eco-friendly, traditional Yoruba afroecological mechanism, together with modern scientific methods are highly apropos. It is germane to the issue of ecology to recover, distil and deploy autochthonous afroecological philosophies and methodologies to confront the current environmental crises. The Yoruba word, *omoluabi* (child sired with excellent conduct), which encompasses the best

virtues in human beings, is thus recommended as the most suitable conduct to be adopted in human-environment relationship. An *omoluabi* will cherish all species in creation, and seek to nourish the earth and everything on it. Such a person will not despoil and desecrate it. Afroecology is the most suited tool for ecological study within African cultural milieu.

References

- Aptekar, L. (1994). *Environmental Disaster in Global Perspectives*. G.K Hall/Macmilian, 1994.
- Benedict, Pope (2009). *Caritas Veritate (Charity in Truth)*. 2009 Encyclical Letter. Libreria edictrice, Vaticana, 2009.
- Benedict, Pope (2010). *Verbum Domini (The Words of the Lord)*. Post Synodal Apostolic Exhortation on the Word of God. Libreria editrice Vaticana, 2010.
- Fadipe, N. A. (1991). *The Sociology of the Yoruba*. Ibadan University Press.
- Francis, Pope (2019). *Laudatio Si (Praise be to You)*. Papal Encyclical on Climate. <https://www.ewtn.com>
- Hufnagel, L. (2018). *Ecosystem Services and Global Ecology*. IntechOpen.
- Hufnagel, L. (2020). *Changing Ecosystems and Their Services*. IntechOpen
- Idowu, B. (1994). *Olodumare: God in Yoruba belief*. African Tree Press.
- John Paul II, Pope (1990). *The Ecological Crises: A Common Responsibility*. US Catholic Conference, 1990.
- Kanu, I. A. (2015a). *A hermeneutic approach to African Traditional Religion, philosophy and theology*. Augustinian Publications: Nigeria

- Kanu, I. A. (2015b). *African philosophy: An ontologico-existential approach to classical and contemporary issues*. Augustinian Publications: Nigeria
- McDonagh, S. (2004). *The Death of Life: The Horror of Extinction*. The Columbia Press, 2004.
- McDonagh, S. (2010). *Climate Change: A Challenge to All of Us*. Columbia Press, 2010.
- McFague, S. (2013). *A New Climate for Theology: God, the World and Global Warning*. Fortress Press, 2013.
- Olaniyan, J. (2003). "Environmental Management from the Perspective of Culture" in (eds) Ade Dopemu, et al. *African Culture, Modern Science and Religious Thoughts*. Ilorin: African Centre for Religions and Sciences, ACRS, 2003, pp. 577-578.
- Omobola, O. C. (2013). *An Overview of Taboo and Superstition among the Yoruba of South West of Nigeria*. Ph.D dissertation, Obafemi Awolowo University, 2013
- Oyewole, O. (2003). "African Cultural response to ecological and Environmental Concerns". In (eds.) Ade Dopemu, et al. *African Culture, Modern Science and Religious Thoughts*. Ilorin: African Centre for Religions and Sciences, ACRS, 2003, pp. 368-379.
- Shehu, M. U. (2017). "Environment and Sociological Theory: Towards an Agenda for Researching Environmental Issues in Nigeria". *KASU Journal of Sociology*, Vol 5, No 1, pp. 114-132.
- Shettima, K. A. (1997). "Ecology, Identity and Developmentalism and Displacement in Northern Nigeria". *Journal of Asian and African Studies*, Vol 32, no. 1-2, 1997, pp. 66-80.
- Taylor, S. (2019). *Ecopiety: Green Media and the Dilemma of Environmental Virtue*. Nyu press, 2019.

- Tubi, P-K. (2020). "Ecocide in Traditional Communities: An Anthropological Study of Ecological Crises in northeast Yorubaland". *IJMSSPCS* Vol 3, no. 3, 2020, pp. 245-255.
- Tucker, M. E. (2004). *Worldly Wonder: Religions enter their Ecological Phase*. Pencourt, 2004.
- United Nations Environment Programme, 2019. *UN Environment Report 2019 - UNEP*
<https://www.unep.org>
- Walting, T. (2009). *Ecological Imaginations in the World Religions: an Ethnographic Analysis*. Continuum International Publishers, 2009.
- World Scientists. *A 2021 Update- Climate Emergency*.
<https://www.academic.oup.com/bioscience/climate-warming>

Primary Sources cited

Adewumi, Osho, Chief hunter
Ajakaiye Yunusa, Farmer
Akande, Ajiboye, Chief priest
Baba Oju, Traditional Chief
Michael Aina, Farmer
Oba Julius Joleto, Monarch
Obahun Sasu, Farmer
Yakubu Aworo, Ogun priest
Yeye Arupe, Priestess
Yeye Olayemi, Priestess

Chapter Eighteen

INDIGENOUS KNOWLEDGE SYSTEMS, THE ENVIRONMENT AND THE PRACTICE OF TRADITIONAL MEDICINE IN AFRICA

Benedict Michael S., PhD

Department of Philosophy

Benue State University, Makurdi

benmike3@gmail.com, mshamijah@bsum.edu.ng

Executive Summary

This paper is an examination of the practice of traditional medicine in Africa. It is generally believed that all societies have its own knowledge system, and that any society that lacks this capability is said to lack its own mind process. There is hardly any society without one, this paper therefore set out to show how and properly understand the culture, practice, traditional beliefs, spiritual climate and practices in African medicine. Central to the practices of African medicine is the knowledge system and myths surrounding it. The study analyses these myths and its potency in healing process, highlighting its epistemological and scientific efficacy. The paper concludes that although, there are scientific approaches in the practice of African traditional medicine, but more needs to be done in the discovery and demystification of certain practices to establish its epistemological validity.

Keywords: Traditional Medicine, Indigenous Knowledge Systems, Africa, Metaphysics, Epistemology

Introduction

There is the need to study, determine and properly-understand and appreciate the culture, traditional beliefs, spiritual climate, and religions of a society whose behaviour researchers observe in space and time. A critical study of African religion reveals without doubt an understanding of knowledge in African society. The concept of knowledge referred to here is epistemology, a branch in philosophy. Epistemology is a branch of philosophy, which deal with the theories of knowledge, it sets the standard criteria for what is, as distinct from mere opinion, from that which is true as distinct from that which is false.

It is generally believed that all societies has it's own knowledge, any society that lack this capability is said to lack it's own mind process. There is hardly society without this, this is because such society will be said to be an irrational society, K.C Anyanwo once asserted that "without knowledge it is impossible for most society to express their world view which constitute an aspect of their experience". The African and European researchers would merely input emotive appeals to cultural forms and behavior as suggested by some unknown minds . Knowledge therefore serves to preserve the culture and belief system of the society. The holds true also in traditional medicine in African society. Although most scholar have tagged it metaphysical, some have argued that the excessive myth surrounding it makes it more ritualistic than a healing process.

However, no one can doubt the potency of traditional medicine. The paper examines these myths and their role in the healing process. Even in countries like China, India, Malaysia, where traditional medicine has been integrated into their national health policy, they are still some element of myth. The only difference is that attempt has been made to give scientific or epistemological analysis of their trado-medicine.

The paper apart from the introduction is divided into three parts, the first examine some conceptual issues, the second looks at African knowledge system, the third and last part looks at the metaphysics of traditional medicine a conclusion.

Conceptual Issues

a. Epistemology

The concept epistemology originates from two Greek words "Episteme" meaning knowledge and "logos" meaning logical or rational. Epistemology which is the theory of knowledge is a branch of philosophy that tries to study what is knowledge, the source and the limit of human knowledge. With regard to source of knowledge most epistemologists believe that knowledge is either derived from empirical or sense perception or from a priori reasoning. This categorization has divided epistemologists into two camps as far as western philosophy is concerned. The empiricist argue or tend to believe that our knowledge is derivable from sense perception through our experience of the external world; while they do not deny the reasoning as a source of knowledge they rather hold that our experience determine what we reason about. On the other side of the divide is the rationalist philosophers who believe that our only source of knowledge is reason through intuition and deductive logic. They generally hold that our experience can only be explained through reason and as such reason is the only source of knowledge. This school was fore grounded by no other person than the father of modern philosophy Rene Descartes.

Rene Descartes in his Meditation argue or likened the knowledge we derive from sense perception to a piece of wax and comments that "the perception i have of it is a case not of a vision or touch or imagination but of purely mental scrutiny " That is, Descartes contrasted his sense of vision or sight and touch on the one hand,

which according to him do not by themselves give us knowledge of the wax and 'purely mental scrutiny' on other. From this contrast he concluded that our knowledge of the wax comes from the mind and not from sense alone. It was from this analogy that he concluded that:

I now know that even bodies are not strictly perceived by the senses or faculty of imagination but by the intellect alone, and that this perception derives not from their being touched or seen but from their being understood. 4

On the other hand John Stuart Mill a British philosopher took the other side of the divide that is from empiricist perspective. He believed that all our knowledge claims are empirical; hence he denied the possibility of a priori or rational knowledge. He illustrated his argument using the law of non-contradictions. The law state's that statement no statement can be both wholly true and wholly false, according to him:

I consider it to be like other axioms, one of our first and most familiar generalizations from experience. The original foundation of it I take to be that be that Belief and Disbelieve are two different mental states, excluding one another. This we know by the simplest observation of our own minds. 5

For Mills, the principle of non- contradiction can be known empirically and this is only possible through experience, he thus concluded that all our knowledge begins with the senses.

b. Metaphysics

The term metaphysics derive its origin from the Greek word "meta physika" which simply means after the physical. Historically the concept associated with Aristotle's work. Aristotle produced works dealing with the nature of the physical world entitled the physics. After his death when his works was being edited by his editor he came to discover that included in the same volume were a number of untitled writing of his which

were dealing with some abstract things like the soul, spirit, death, life after death, mind and body. These came to be known as metaphysics. In the modern times the concept is not only used to refer to his works alone but as a study of that which is abstract in nature. That is, metaphysics cover realm of ontology; by which it is meant, the being of object or the existence of being. The philosophers here are not interested in the existence of the objects for interesting sake but rather they are interested in categorizing these Objects, into material and non material objects.

Again this categorization has divided philosophers into the materialist philosophers and the idealist philosophers, while some have argued that all that exist matter or material in nature and that non-physical matter, such as the mind are traceable material substances for instance the brain or the central nervous system.

On the other side of the divide is the idealist philosophers who believe that objects like the mind has independent existence, that is, they are not locatable in space and time neither does it have size or shape, as a result this school of thought believe in the existence of a dualism. While the former's position is referred to as monist. In the case of dualist philosophers they hold that there are two basic entities, the mind and the body. The body they hold is material entity locatable in space and time, with size shape and color, reverse is the case of monist who believe that all substance are nothing but matter.

Knowledge in African

African knowledge system is not a distinct form or type of epistemology, it is epistemology in the general sense of the word - epistemology that is the search for knowledge. However, let us briefly examine Western epistemology. From our conceptual

analysis of epistemology we discover that western epistemology creates compartmentalization and a duality world. Dualism in Western philosophy assumes that subject and object are two separate independent realities⁶ that is, they represent two opposing theories of knowledge which are rationalism and empiricism. This compartmentalization in turn brought about the division of reality in metaphysics in terms of objectivity and subjectivity. According to Ndubuisi and Okoro this dualism led to other dualism in Western philosophy such dualism as mind and matter, freedom and necessity, determinism and indeterminism

The uniqueness in African epistemology is the elimination of this duality, that is, there is no distinction between the object and subject, matter or ego, and man and nature. Nature, Clement Onianga observed, is centered upon the self and that man live in a personal world of cultures. This makes African epistemology holistic, since Africans consider nature not to be complex whole. Nature for them becomes self centered. This eliminates the conflict between the self and the world, object and subject. This is because every experience of reality is personalized. This personalization of nature, Ndubisi and Okoro assert is the totality of human belief and experience. In corroborating this, Ayanwu comments that the totality of humans and their faculties do not address themselves to reason, imagination, feelings and intuition alone, but to the totality of a person's faculty. That is why the deepest expression of African cultural reality is through art, myths, music and dance. This eliminates the dualities that exist in western epistemology, that truth is lived and felt, not merely thought but as Udiguomen puts it, it involves participation II; it goes beyond talk, it is lived, felt and torched not in isolation but in participation.

To understand the knowledge of reality Africans maintain, that the individual do not detach himself from the universe but rather actively continuous participate in process life events because in space in and African time; just culture as life death and death is considered are seen as ora conceived of, as ultimately part of harmony of nature. It is not the destruction of the individual, but merely the passing away into another state of existence. Despite the painful nature of the departure it is still celebrated as dead but living, that is the living dead. This is because although dead he still remains alive in the active memory of his relatives, who celebrate his life for a long time. This is because, in Clement's words, he is remembered both mentally and also by ritual remembrance sacrifice. Arguing along the same line is Mbiti, who believes that the living dead should be respected as an ancestor

This serves as the basic foundation of African epistemological belief; that in this kind of artistic world and universe, all opposites form one living, unitary and inseparable reality from thought. That is, man and nature are not two inseparable and opposing realities, rather reality is one inseparable continuum of a hierarchical order of forces. This order of forces that Clement referred to as a power grid¹⁴, interact with each other in such a harmonious way that there is order. The order of this forces include God at the highest point, the supernatural beings or gods in the middle, ancestors, man or human beings, animate beings, and in ammate forces such as stones at the lowest level. The connection is such that the highest being or force which is God directly influences the lower ones, while the lower ones indirectly through the intermediaries such as ancestors influence the higher beings through rituals, sacrifices and prayers.

On the whole participation in this instance is based on human experience, for instance, the belief in magic and other traditional belief is because there are certain behaviours and practices that are called magical, and every culture has its own reasons and grounds for its beliefs. Take the case of the belief in God, divinities, spirits, ancestors or living dead as discussed above which are centered on certain foundations; these beliefs are meaningful and their justifications are based on human experiences. These experiences are in turn guided by culture. By culture we mean the principle that guide our beliefs and ideas and help us to live meaningful life.

The understanding of these beliefs give us the knowledge of causation in terms of the interaction of forces of nature, how things emerge out of many interactions. That is how one type of force produces an effect on another type of force¹⁵. This is because there exists the principle of ontological balance which plays a key rule in the African way of thinking and knowledge. Roy expresses this when he asserts that “they form an inter relationship among the various categories of forces that constitute the forms of the structure of reality”. Like the grid line as described by Clement, Mbiti stressed the need to maintain the ontological balance between God and man, the departed and living ¹⁸. This directly affects the individual in the command or the entire community; this is because peace and order in the community are attained when there are no changes in this balance.

As regards harmony in this hierarchy of being, the hierarchy is such that there is intelligence at each level, this made Roy to posit that divinities, spirits, human beings and certain forces are endowed with intelligent forces.¹⁹

From our analogy it becomes clear that force is critical and central in African perception, of realities. Tempels, explicates, this about the Bantu people when he asserts that being for the Bantus is concerned with the category of force of reality which exist in everything in the universe.²⁰ For Temple force is the reality of reason which all beings, in his own words, have in common so that the definition of this reality may be applied to all existing form of being A . According to Temple, in Bantu ontology, the all embracing element which permeates all elements and all form of being is force. Metaphysics for the Bantu, he further contends, consists of knowledge embracing all the physical or the real. This force is the foundation of reality and experience of metaphysics.

On the whole African epistemology is surrounded by the role played by humans, nature and vital forces and the interrelationship of these vital forces in nature. Vital power is what matters in life. ²² That is, the unity in nature is based on self-experience and cannot be separated as any attempt is impractical. Anyanwu explicates this when he argued that the self vivified or animated the world so that soul, spirits or mind of the self is also that of the world. The order of the world and that of the self are identical. ²³

Secondly what destines man in African society is the way he is situated in the society, the way he acts and is acted upon and reacts in every event. African cultures promote coexistence with many of the vital forces or vital relationship in the cosmos ²⁴ since everything is infused and energized with life forces.

Thirdly since everything share in it, in African epistemology, all things are similar and share the same qualities of nature. This ensures that there is constant interaction among the forces. This

according to Ndubuisi and Okoro is the reason why in some instances secret forces Interfere in the course of events 25

Metaphysics and African Traditional Medicine

Metaphysics is a branch of philosophy, which deals with foundation. These foundations are the principles of life which are the activities or ideas in human mind, which guides our daily activities, as well as create harmony between people and things.²⁶ Africans have identified spirits as the ultimate working principle, which directly and indirectly guides them to carry out their activities.

This makes the practice of medicine in traditional African society to be spiritual. They trace ailments beyond the physical,²⁷ which goes to show or make African medicine holistic in nature. Holistic medicine according to Ndobuisi and Okoro, is both spiritual and psychological, this is because for healing to take place it must embrace the totality of the person 's being, that is; his spirit, intellect, and emotions. The traditional healer thus needs to explore the metaphysical and the patient's psychological chemistry to enable him achieve a meaningful result.

This is not peculiar to traditional medicine alone, as the exploration of the psychological connection to diseases is a common practice in medicine all over the world, the major difference here is that, Africans approach this psychological analysis primarily from the mythical and spiritual dimensions. This is because Africans believe that life is a continuous process; even at death the spirit lingers and interacts with the living especially those of his lineage²⁸. As Makinde points out, the soul is that which gives life to the body. And because its essence is life, the soul does not admit the opposite which is death. ²⁹ That is, the ancestors die only physically not spiritually, as a result,

they are believed to have powers spiritually over the living. This is based on the concept of vital force, which animates the world. As earlier stated this vital force exists in hierarchies and influence one another both in a decreasing and ascending manner. They however cannot extinguish the life force of the other. 30 That is why the spiritual is sort for in traditional medicine in order to appeal to the harmony that exist in the vital force; apart from that they are controlled by the same spiritual entity. This is the simple reason that makes traditional healers call on both the ancestors and the spirits of the plants and herbs and appeal to them, for effectiveness. The land must also be appealed to. All these rituals are carried out to integrate the forces within the environment. Also invoked is the individual's spirit for the same reasons. In essence, the individual's spirit needs to be in harmony with the environment he lives before healing could be holistic. This is the foundation of traditional medicine in African society.

Conclusion

The paper examined the concept of metaphysics and epistemology as a comparative analysis of western and African concepts in both areas. It contends that the knowledge of epistemology influences understanding of the metaphysical nature of African traditional medicine.

The paper contends that African epistemology does not admit duality but rather argues for the existence of a unitary holistic point of view. These perspectives of looking at nature make the Africans believe that there is harmony in nature and that the universe of life or vital force that exist harmonizes with the environment; and that healing in African traditional medicine encompasses the appeal to these forces including that of the individual spirits to make healing possible.

Endnotes

1. Anyanwu K.C "The African Worldview and Theory of Knowledge" in Kenneth Anyanwu (ed) African Philosophy. Rome; Catholic Book Agency 1981 p. 77.
2. Anyanwu K.C p. 79.
3. Descartes R. The Philosophical Writings of Rene Descartes, translated by John Cuttingham, Robert Stoothof, Ronald Morduch. Cambridge University press. 1984 1138.
4. Descartes p. 39.
5. Mill J.S. "The Principle of Utilitarianism" in Robert Solomon (ed) A short History of Philosophy New York: Oxford University Press, 1996 p. 108.
6. Clement, O. African Concept of Nature. An internet material.
7. Ndubuisi, F. and Okoro Reflections on Epistemology and Scientific Orientation in Africa. Lagos: Foresight Press 2005 p.28.
8. Clement Oniengo 2001 p. 16.
9. Ibid p. 16.
10. Ndubuisi and Okoro p.29.
11. Op.Cit p.29.
12. Uduigiomen Y. " The Place of Oral Tradition in African Epistemology" in Francis Uduigiomen (ed) Footmarks on African Philosophy. Lagos Obero and Ogbinaka Publishers 1998 p.39.
13. Mbiti J.S. Introduction to African philosophy and Religion.
14. Roy p, "Philosophical Foundations of Nigerian culture". Quoted in Okoro Reflections on Epistemology and Scientific Orientation in Africa. Lagos: Foresight press 2005 p.28.
15. Roy p. 18.
16. Roy p. 18.
17. Clement Oniengo p. 17.
18. Roy p.31.

19. Temple P, Bantu Philosophy
20. Jim V. African philosophy: Trends and Projection in Six Essays. Lagos Foresight Press 2002 p. 18.
21. Hamminga B. "Epistemology from the African point of view," Cultural Research Center: Jinja 2004, an internet material.

Chapter Nineteen

TRANS-BIOLOGY AND BIOSPHERIC MODIFICATION

Hilary Ugwu

MSW University of Oklahoma

School of Social Work Norman, USA

hiugwu@yahoo.com

Executive Summary

Man's techno-scientific optimism is massive. There is a newfound zeal, by modern man, in the science of trans-biology. But is trans-biology healthy for life on earth? Will man cause his own extinction by dabbling into trans-biology? Will trans-biology sciences unveil a new technological Darwinism? If man crosses a boundary beyond his humanity and ventures into the dark side of techno-scientific Darwinism, won't this be the final apocalyptic dystopia which has been predicted thousands of years ago? These are some of the questions reflected in this paper. As we move into the future, we should be aware of adverse consequences of some scientific pursuits. If we ignore our own biological instincts life forms on earth could be destroyed by the emergent self-conscious, self-animating, self-replicating and self-preserving artificial machine programs. The core philosophy of techno-Darwinian survivalism is that the "fittest" will dominate and exterminate lesser evolved species. They have even made a movie called *The Terminator* (rise of the machines) where the creation of science became a threat to the human life. Is this movie a predictive mind-programming? Charles Darwin (1809 - 1882) was clear in his intentions and he did not mince words. In the past less evolved anthropomorphous apes were driven to extinction by hominids with larger and smarter brain matter. Darwin stated that advanced races of men will

“...certainly exterminate, and replace, the savage races throughout the world.” If this is the case, this sequence is applicable to man-machine relationship in the future. If we follow the thinking of Darwinists, a question naturally arises: What will happen when Artificial Intelligence (AI), supersedes the intelligence of humans a billion times. Will humans be replaced by machine? This paper probes into some existential questions relative to trans-biology. Trans-biology revolution is happening right in front of us. Modern humans live in an interesting time of change. We are witnessing a techno-scientific revolution different from anything ever recorded in history. Bio transmogrification process is in full display on earth. This transmogrification is designed to usher in a New Earth that is genetically modified as well as a artificially augmented. Many world-event analysts have described this time as The Great Reset. Klaus Schwab marshaled out some of the great changes this century and beyond will experience. Some of these areas involve how science and Big Tech will change everything on earth. Mr. Schwab is the founder and Executive Chairman of World Economic Forum. He sees something majority of people on earth cannot see.

Keywords: Trans-Biology, Biospheric Modification, Earth, Species, Environment, Artificial

Introduction

Genetic science, Artificial Intelligence and cybernetics are some of the modern sciences that could alter biology as we know and experience it on earth. Through these sciences man has acquired the “forbidden knowledge” of the gods. He has become the creator, preserver, and the destroyer of himself and the world around him. Man can now modify nature so easily as he pleases. He can carry out cross-speciation just for the fun of it. Today, man has the scientific ability to mongrelize himself with insect in

a fusion of Frankenstein creation. He can weld himself with machine to become a cyborg. He can chip himself with electrode and live in a virtual reality. This sort of sciences could constitute existential threats to earth's biological organism if not handled properly. Bio-organism as we know it took millions of years of evolutionary process to be what they are today. God's universal natural law is never in a hurry. But modern scientists seem to be in a hurry. They seem to want to take over creation from the universal natural law and to redirect her to unnatural law.

Trans-biologists and trans-humanists believe that soon artificial 'life' forms will replace bio species. This is what the concept of post-humanism implies. Post-human points to a time in the future when humans will be either obsolete or exterminated and artificial systems take over the world. This is not a science fiction by the way. This is the goal of many elite scientists. When scientists discuss Darwinian "survival of the fittest," we often think in terms of the realm of plant and animal food chains. We, therefore, tend to underestimate the possibility of artificial intelligence, cyborgs, nanobots and other advanced machines destroying the natural world. We tend not to think of machines of the future evolving into the Darwinian "most fitted" and most "civilized" and exterminating and replacing 'primitive' species of this biosphere, such as man, animal, plants and other naturally occurring microorganisms. Passa (2019) the founder of The AI Organization, warned the world in his brilliantly researched book, *Artificial Intelligence Dangers to Humanity*, about the coming replacement of humans with self-aware artificial systems. He indicated that bio-modification and AI takeover is ongoing in our world and that it poses the most dangerous threat to mother earth.

We are familiar with social Darwinism, military Darwinism, economic Darwinism, racial Darwinism etcetera. We have

witnessed dark sides of their displays on this planet. But we have not paid adequate attention to biological techno-Darwinian survival of the fittest. In discussing this topic therefore, I am not restricted to specific type of eco-systems Darwinism. Environmentalist thinkers are already doing the work, warning us on the issues such as over exploitation of the earth as well as ecosystem pollution by man. This paper is not an environmentalist campaign. It is rather something deeper. That is, it focuses on trans-biology. Church & Regis (2012) in their book, *Regenesi: How Synthetic Biology Will Reinvent Nature and Ourselves*, referenced "the future interface of inorganic and organic world." Inorganic simply means something that is not from organic (natural) matter like chemicals or nanobots. Modifying the earth from her cause of natural law to unnatural law is a form of scientific biological terrorism. The earth is a giver of life and must be respected. She is unique and different in the entire solar system.

Origin of Life Hypothesis: The Earth

She has been called Gaia, Ki, Erez, Eden, Tiamat, Terra, the Great Mother etcetera. All these names refer to the same astrological object in our solar system, the earth. There are so many theories as to how earth came to be. Widely spread in all culture around the world as to the origin of planets is religious mythologies. Most of these mythologies are similar and dwells on the idea that earth with other space bodies were created by God or gods. Sitchin (1990) in his book, *Genesis Revisited*, opines that there might have been "primordial truth' underlying these similarities in religious creation mythos. He invokes the concept "genetic memory of the species called Mankind" in trying to explain that man's idea that the earth and other planetary objects in the space were created by some deities may have arisen from the human memory repressed deep in unconscious minds. These repressed

unconscious memories are what the Swiss psychiatrist, Carl Jung called “the collective unconscious.”

In ancient Sumerian mythology, it was the group of gods known collectively as the Anunnaki who descended from their abode in the space called, Nibiru and created the earth which they called ERIDU. It was a garden teeming with bio-life forms. The Sumerians believed that all life forms were created by the Anunnaki gods. Words like Eden or Earth are morphological mutations from the same Sumerian word Eridu according to Sitchin (1990). In other words, the widely known Hebrew creation myth is derived from ancient Sumer. This is because Sumerian civilization is older than Hebrew Civilization and so is their creation myths. Hebrew creation myth indicated that the deity Elohim created the earth and all biological organisms on it. While we will not spend much time in this paper recalling various creation myths of culture around the world, we would want to identify that ancient Egyptians also have varied myths as to the creation of earth depending on specific systems we are looking at. For instance, in the Heliopolitan system, Atum was the creator of the earth and all living organisms in it.

Religious myths are not the only theories as to how the earth came to be. Science has its postulations as well. The most pronounced theory in the field of science is the Big Bang Theory. The Big Bang theory is the most prominent of all scientific postulations as to how the universe, including the earth, came to be. This theory is based on pure materialism. ‘Big Bangers’ reject the religious notion of an intelligent creator. The universe is random and started from a point known as Singularity. This point of singularity exploded at an enormous speed causing magnetism and matter to disperse and to accrete into proto planets. This event took place, according to science, some 13.8 billion years ago.

The age of the earth is conjectured by scientists to be 4.5 billion years. The formation of the earth must have followed the law of magnetism and accretion after the Big Bang. Dusts whirled into a protoplanetary mass which took considerable number of years to solidify. Earth was probably extremely hot during its early stages of formation. A publication by the Geographical Monograph publication (SeriesNo. 212) titled, *The Early Earth: Accretion and Differentiation* (2015) described that there were: "...series of complicated and bewildering events that began with condensation in the solar nebular proceeded through the cataclysm of planetary accretion from which emerged a hot and molten proto-earth." If this hypothesis is true, it must have taken very long time for proto earth to cool off. It remains a fact today that the core of the earth is extremely hot containing liquid rock and iron. It took billions of years of transformation and evolutionary growth for proto earth to evolve into a maturation stage to be able to support organic life. Scientists attributes the presence of biological organisms on earth to some complex chemical process which took millions of years of evolutionary process to arrive at its current state. They also postulate that the earth did not always carry oxygen during its early formation. Oxygenation of the earth came with the arrival of blue algae. Oxygenation occurred about 3.8 billion years ago. Using solar energy, blue algae were able to translate O₂ and CO₂ into the simple sugars as needed. In the process, they give off oxygen. With the presence of oxygen, emerged proto-cellular life forms which later transformed into more complex cellular organizations with a well-defined nucleus containing the genetic material for more evolutionary process. Natural evolution is gradual and does not skip stages. The idea of human designer evolution is terrifying especially when something goes wrong with such scientific creation. This could lead to another universal Great Flood of death, mass extinction and destruction.

Earth Biosphere: A Home for Millions of Species

So far, planet earth is the only astronomical object in our solar system where human life exists and thrives. Earth did not evolve humans only. Billions of other biological life-forms, fauna and flora species alike share the earth with humans. The origin of biological life on earth, both micro and macro remains a substantial provocative topic in the fields of both science and religion. Each of this field of human quests for the truth, as indicated above, has its theories, postulations, and or belief systems as to how organic life evolved and spread on earth. Despite the prevailing differences in both the scientific as well as the theological prognostications relative to the origin of bio-life forms, there remains an irrefutable agreement in belief across sciences. That is, the fact that biological life exists on earth which include humans confronted with multi-faceted existential issues. The ability to support bio-organisms is one of the characteristics which set earth apart from other known astronomical objects in the space. Earth evolved liquid water on the surface which is a precursor for bio life as we know it.

Astronomers have continued to probe for nearby space for exoplanets with the possibility of new discovery as to biological life-form. Prinja, (2012) expressed that: "There are 200 billion stars in our galaxy, the Milky Way, and billions of these stars are like the sun. One out of five of the sun-like stars could have earth-like planets just in our galaxy. That's a lot of planets where life may have started!" Man wishes to transcend biology in order to explore the stars. So trans-biology is a science that will not phase away. Lunan (1974) asserted in his book, *Man and the Stars* that human have always quested to spread out to the stars in the future. This is the goal that space exploration programs and mission are attempting to reach. However, at the moment, it is scientifically unattainable for the current biological state of man to evolve to the stars. If such possibility is realizable in the future,

it will require technological and, or digital augmentation. But human-machine symbiosis will not start in the stars. They start here on earth and progress to the stars. What we once read in books as science fictions, we will experience as science facts. What was once in the realm of hypothetical conjectures of brilliant minds will be made manifest as realities. Part of this manifestation is re-designing biology, hence the word synthetic biology. In 1912, a Frenchman by the name Stephane Leduc published a work titled, *La Biologie Synthétique*. Many researchers believe that it was from Leduc's work that the scientific concept synthetic biology emerged. This concept is obviously an oxymoron since biology is completely distinct from synthetic matter. nevertheless, what is implied by synthetic biology is the harmonization between biology and artificial machine. Such experimentation is ongoing.

Unholy Matrimony between Biology and Artificial Systems

Intentional synthesization of natural life-forms with chemical/synthetic or artificial systems, through bioengineering is ongoing. Synthetic biology as I imply in this paper means all actions of man which employs science and, or technology to modify natural life into artificial systems. It is the symbiosis between organic life and machine. So, the new bio-designer of the earth is here with us, and he is no other one but man himself. Already we are witnessing increasing medical technology such as bio-prosthetics. Trans-biologists exploit benevolent medical technologies to hypnotize us into believing that trans-biology is good for life on earth and the only forward. We are also witnessing digital prosthetics where scientists are implanting humans and animal with artificial systems to "enhance" their vital performances. Effort is ongoing to promote mass acceptance of artificialized DNAs, artificial blood transfusion, artificial cell replacement, artificial hearts implantations etcetra. Take a moment to reflect on the concept of synthetic biology.

This encompasses the whole movement aiming to utter creation tremendously by replacing natural law with unnatural law. This is what biospheric modification and trans-biology is all about. Although this type of sciences is presented as beneficial for man, as a benevolent gift, the truth is that it is a Trojan horse harboring bio-extinction programs. Nevertheless, this paper is not meant as an attack on research and developments and their benefits whereof in term of bioengineering. Rather, it is meant to explore ways human action contravene natural law and potentially causes extinction of biological systems on earth.

Trans-biology: The Path to Bio Extinction

Dangerous biospheric modification presents man the opportunity to become the dreamed superman. Transcendence biology is part of this biospheric engineering. This terrifying human scientific escapade will transform man into a synthetic digital entity. The word trans-biology, as I have repeatedly used herein, means exactly what it said – transcending biology. Trans-biology begs the questions: From biology to what? What is man evolving into? What will the next stop in man’s evolutionary destination? To answer this question is to understand man-machine synthesis, which is the anger of transhumanism. There are two types of cosmic evolution. One is natural and follows universal natural law. The other, which is our concern in this paper, is unnatural evolution. Darwinian “natural selection” philosophy will sound like a fairy tale to the fast emerging “unnatural selection.” What I mean by “unnatural selection” is evolution by human design or designer evolution. Is designer evolution real evolution, or it is a de-evolution.? Many people are of the notion that designer evolution is, as a matter of fact, de-evolving man.

Designer evolution approaches the concept of man from a materialist viewpoint. But there are other dimensions to man that

are spiritual. I am aware that the materialists reject the spiritual component of man hence their aim to re-design a man-machine that lack self-awareness beyond the material realm. The concept of life after death is non-existence in the thinking of transbiology materialist. The materialist interprets all discuss about man's spiritual transcendence and life after death as nothing but the functioning of electrical signals within the neuronal systems or the residues of cell memories. In his best-selling book, *Proof of Heaven: A Neurosurgeon's Journey into the Afterlife*, an American neurosurgeon, Dr. Alexander (2012), a former ardent believer in the science of materialism, recounted how Near Dearth Experience (NDE) converted him from years of extreme materialism to the belief that humans have souls which continues to exist after death.

Trans-biology is not limited to human-to-machine transmutation as currently being advocated by transhumanists and their cousin posthumanists. It also involves transforming mother earth to something synthetic or artificial. This explains why geo-modification is going on in our world today with nanoparticles such as aluminum barium and strontium saturate out atmosphere. In addition, the negative manipulation of electromagnetic spectra by trans-biologist is causing the earth to experience adjustment or modification. Trans-biologists employ science and technology to improve argument and eventually replace biology. Digital, nano, prosthetic, artificial and mechanical means are being deployed for biospheric enhancement. Trans-biologists see universal natural law as lazy and sluggish in its process of evolution. They therefore want to introduce man-made version of biological evolution which will be artificial evolution. Despite the promises of trans-biology to 'improve' bio-life forms, man must bear in mind that transbiology could mean bio extinction.

This paper cannot emphasize enough that trans-biology is man's scientific quest to utter universal natural laws (of God) which governs the biosphere. Vermeulen et al (2016) in, *Bio Objects: Life in the 21st Century*, referenced trans-biology as a "reorganization of living matter. "They further elucidated that: "Transbiology is not just an epithet for laboratory action, but also captures the postmodern diffusion of science into all imaginable sphere of society; popular culture, politics economics etcetera." This gives us a window into the designer evolution rapidly unfolding on our planet. Is man rebelling against the universal natural law of God? What will be the consequences of this rebellion?

There are dangers which extreme scientism presents to biological life-forms on earth. As humanity moves into the future, there is a push by certain segments of elite scientists not just to "re-design" the biological systems but to reformat earth in its entirety. Man's love affair with cybernetics has brought him so far to the doorstep of what Aldous Huxley called A Brave New World. Cybernetics is the branch of computational mathematics dealing with the science of control, feedback, and communication in animal and machine systems.

The word cybernetics is etymologically derived from the Greek word *Kybernetes*. This word implies "pilot" "steersman" or "governor." Cybernetics is about systems control, all system – biological systems and artificial systems. It was Norbert Wiener who in 1948 coined the term cybernetics. The idea of artificial intelligence emerged from cybernetics movement. McRoy, (2019) wrote in, *Autism Epidemic: Transhumanism's Dirty Little Secret*, that Cybernetics is an outgrowth "... from the scientific endeavor to quantify and control biology." In other words, the real agenda of 'cyberneticians' is trans-biology. Rapid acceleration in research and development in the areas of bio-synthetic system will reshape our natural world. The emerging cybernetic

mutualism between organic and artificial systems is a preview of the next phase of induced human evolution. The human mind naturally interacts with the world through an awareness of natural law. Man is therefore new to the ideas of bio-synthetic fusion, the turning of man into a machine for instance. If this future nightmare succeeds, synthetic systems might attempt to override all biological programs of universal order or natural law. This is a huge concern.

Do Trans-biologists Exist?

Trans-biologists do exist, and they have the desire for reformatting the biosphere. That is, the transmutation of all bio systems into artificial systems. The German philosopher, Nietzsche in his work, *Thus Spoke Zarathustra* declared boldly that “Man is something to be overcome.” This statement would as well be interpreted to mean that biology is something to be overcome. When you overcome man by synthetic digital or cybernetic argumentations, he is no longer man. He is something else, a cyborg. When you overcome biology through synthetic infusion it is no longer biology, it is something else. All trans-biologists are transhumanist. In the minds of trans-biology “mad scientists” biology is ineffective, time wasting, antiquated and futuristically obsolete. First, they will start with robust biological enhancement and or, argumentation. Then they will progress to the next stage of complete replacement of biological systems with artificial systems.

To be intellectually fair, there are scientists who are ethical who genuinely harbor healthy intentions. These categories of scientist want to do the right thing. They want to improve life on earth, especially the human life. However, we cannot ignore the spillover effect which bad science of the “mad scientist” has left on the test bud of humanity in the past. The end goal of these “mad scientists” is synthetic biologism. Like Dr. Moreau in the

American motion picture, *The Ireland of Dr. Moreau*, these “mad scientists” are engineering a fiendish nightmare on our planet in the name of human advancement. In Mary Shelley’s 1818 dark novel, *Frankenstein* we see scientific materialism and its unethical adventure in full display. Scientific ‘Frankensteinization’ of the earth by “mad scientists” should concern every ethically thinking human.

Anyone who has keenly studied the history of the human scientific and technological evolutionary progress, as pertains to the modern era, will notice the exponential rise in man’s scientific and technical abilities. As recent as 1980s it took an entire house full of digital equipment to match the processing power or the computing abilities of smart phones in the palm of our hands today. Thus, man’s techno-scientific tools are becoming better and more efficient. As scientific and technological knowledge improve, man gains a new confidence. He acts the master or natural law which he rejects in place of his own will. He does not only want to transcend his nature, but he also wants to lead the entire biological order to a new and different kind of unnatural evolution.

From *homo sapiens* man dreams of evolving into the next stage—*Homo Deus* (Godman). *Homo sapiens* is considered “wise” on the evolutionary scale in comparison to other hominids by virtue of the power inherent in his brain matter. Today, trans-biologist no longer recognize *homo sapiens* as wise. He is just another dumb brute like other great apes hence their need to re-think the entire human species and re-design them. Trans-human, post-human, *homo-cyberneticus* or cyborg will replace the current biological state of man. Man is now discontent with being man.

He wants to emancipate himself from the state of natural existence. Artificial biology presents to him an irresistible temptation. He wishes to shed off his old skin of humanness to become “better.” However, he understands that he is contravening God’s universal order of things. He knows inherently that he cannot evolve to his dreamed god status without synthetic augmentation. The god that man becomes in the future is not recognized by universal natural law of evolution. This “god” will be mechanical—a synthetic digital machine lacking soul consciousness and disconnected from Source (God).

The “Ubermench” and His Unnatural Will

It is the new morphological ascent into the status of Homo Deus that Nietzsche described as the *Übermensch*, the superman. Man’s newly re-created self-identity or self-image vindicates that famous philosophical prognostication of Protagoras of Abdera (485 to 415 BCE) dating thousands of years. Protagoras declared that “Man is the measure of all things: of things which are, that they are, and of things which are not, that they are not.” One therefore wonders if Protagoras was one of the ancestors of scientific materialism which our modern world runs on. Scientism exists to eliminate soul from science. Thus, as science continues to be soulless, man will continue to be superficial.

Trans-biologists are evolving the world to the next nano stage. With nano technology, humanity is opening the door to the world of invisible machines—a world of artificial reality completely dominated and controlled by self-conscious, self-replicating, and self-preserving artificial intelligences. New nano particles will build new fake realities. New nano cells will sustain synthetic ‘life’ forms. Synthetic blood and synthetic organs will be used to prosthetically replace humans. Artificial trees, births, crickets, lizards, bugs will replace nature as you know it today.

Passa, (2019) already warned the world that insect drones such as dragon flies, mosquitos, bees, beetles, spiders, cockroaches, snakes, ants are already mixing with our natural reality and are being used for espionage. These robotic insects can hardly be distinguished, they can be used to carry out assassinations by delivering bites of nano poison to targets. Insect robots are used to follow people around and to spy on them. This is the new world. A new man unnatural man is on the rise. He is rising like the apocalyptic beast from the earth, and he is a soulless machine who will remake the world into artificial image. There is a new creation unfolding and this is nothing like your biblical creation story. The earth and humanity are at the danger of being replaced by artificial versions. We must not lose sight of the fact that some of these scientific “forbidden” knowledge is in the hand of elite “mad scientists.”

Social Engineering for Bio Extinction.

Anyone who observes the unfolding of scientific events in the contemporary society will notice that there have been gradual but consistent exposures of the masses to trans-biology philosophies. These is being done using predictive mind programing as well as social and behavioral engineering. These exposures occur mainly in Academica, social media, pop culture and even in liberal theologies. Unfortunately, the Academica is one of most controlled segments of the human society. Professors are programed so they could program others en masse. We are in the Great Age of Trans. The word trans means: Across, to cross over, to pass-over, to overcome, to go beyond, to bypass, to surpass, to exceed or excel, to expand beyond present forms or to progress to the other far end of the spectrum. Trans-humanism, for example, is but one mutation of this hydra-headed viral *trans* phenomenon under discussion. Scientific elites are familiarizing us with words such as trans-nature, trans-species, trans-gene or transgenics, transchromosome, trans-

genderism, transvestism, trans-culturalism, trans-nationalism etcetera.

If research spate and scientific enthusiasm persists in the field of trans, we will certainly end up with a world of total transbiology. This is the final dreamed reality of all transhumanists. They are selling us anti-nature disguised as altruistic science. But the real catch is to reformat nature and to replace man. It is a trap! Like the serpentine offer to Eve in the Garden of Eden and the consequences of the aftermath of yielding to the tempter and eating the “forbidden fruit” man will be driven out of the Garden of universal balance, universal natural law, or universal order. Transbiology serpent, just like the biblical counterpart, is offering us the tempting apple of “digital immortality” which will make us “become like God.” This is what transhumanism/posthumanism or trans-biology is all about. Science wants to re-engineer our entire biosphere in the image of artificial reality, and we are buying it. We are being inundated with concepts such as geo-modifications or geo-engineering, atmospheric engineering, solar engineering etcetera. Scientists are now pushing for programs such as stratospheric controlled perturbation experiment. Their goal is to dim the sun (solar engineering) in order to modify our biosphere. If this is not anti-natural law, then what it is?

Those who critique unethical, anti-human, anti-nature research and development are often mocked as scientific luddite. This is only an attempt to bully concerned people to fall into a state of shame-induced mutism. The reason we should all stand against bad sciences of the “mad scientist” is because if bad science succeeds the earth and biological life-form as you know will be replaced with synthetic ‘life’ forms such as robots, autobots, nanobots and cyborgs. A synthetic world will be a dystopic artificially engineered reality where there is no free will and

where evolution is removed from natural law. A new world of total cybernetic machines will turn our dreams into nightmare. The new catch phrase of trans-biologist which alludes to the future of a reformatted earth is synthetic biology. Pay close attention to the concept called synthetic biology as we journey into the future imagined by scientific materialism.

Biology and Engineering

So, what is bioengineering. We will define bioengineering as the application of the fundamental principle of engineering to biology. With bioengineering came the concept of patenting life. Scientists who have been able to bioengineer (re-format or re-design) nature usually lay claims of legal monopolies of the modified life form. Thus, monopoly of nature by elite scientist is a threats to the rest of humanity. Bioengineering is multi-faceted. Sciences such as biomedical engineering, neuro-engineering, biotechnology, biomaterial, marine biotechnology, environmental biotechnology, bioinformatics, bioprocessing engineering, nanotechnology bio-mechatronic, bioinstrumentation, clinical engineering, system biology, synthetic biology, system physiology to name but a few, fall under bioengineering. Man has utilized these areas of research studies for the improvement of life on earth. But he will also use them to destroy and replace life.

It was the post-World War II era that gave us the concept we have come to know today as bioengineering. The term bioengineering first entered the human lexicon in 1954. The British scientist, Heinz Wolff first coined this term to depict a scientific matrimony between biology and engineering. Wolff was a researcher for the National Institute for Medical Research. Following that, academic programs and school departments adopted the term to describe man's scientific re-designing of nature. However, bioengineering as a human scientific quest

dates back farther in time. The term engineering has become well known following the successful completion of Human Genome Project between 1990 and 2003. This is one of the greatest achievements of bioengineering in all human history and which will redefine and re-design nature through what is known as bio-modification.

The gods and Transcendence Biology: Ancient Stories of Induced Bio Extinction.

Did humans learn from the gods the idea of trans-biology, biospheric modification and eugenics? The story of the Great Flood, which is present in virtually every human culture, is nothing but a story about transcendence biology. There are many ancient texts reporting that the gods concluded that the genetic stock of all living organisms in the past were defective and needed destroyed. So, the very idea of genetic extinction or annihilation goes back to the gods. There exists some evidence in ancient texts which report that the gods have previously engaged in bioextinction of species on earth. The Mesopotamian story of the destruction of the earth is very popular and it is what birthed the Hebrew version of Noah's story of the destruction of the world. In the original Flood Story Tablet of the Sumerians, the hero is not Noah but Atrahasis. The gods felt that mankind has de-generated to the point that they needed to destroy them. The god Enlil (the Hebrew Yahweh) verbalized his intent for genetic annihilation thus:

*"Now, let them not listen to the words that you (say)
The gods commanded an annihilation,
A wicked thing that Enlil will do to the people.
In the assembly (of the gods) they commanded the Deluge (saying):
'By the day of the new moon we shall do the task.'
Atrahasis, as he was kneeling there,
In the present of Ea (Anunnaki god) his tears were flowing.*

*Ea opened his mouth,
And said to his servant (Atrahasis):
“For one thing you are weeping for the people,
For another you are kneeling (as)one who fears me.
There is a task to be done (building a boat)
But you, you know now how to accomplish it.”
See Old Babylonian Schoyen: iv 1-16*

Atrahasis, who later was called Noah by the Hebrews, carried moral and genetic righteousness (purity) and was preserved by the gods. He pleaded on his knees on behalf of all biological lifeforms for the gods to spare them. In another version of the story called, Epic of Gilgamesh, the Anunnaki (gods) ordered Gilgamesh to build an Ark because they were to cause all biological life to extinct. The gods gave Gilgamesh specific measures on how to build the boat – length, width, height etc. When the Ark was finished Gilgamesh expressed following:

*(Everything I had) I loaded aboard it
I loaded aboard it whatever silver I had,
I loaded about it whatever gold I had
I loaded aboard it whatever seed I had of living things, each and every one
All my kith and kins I sent aboard the aboard,
I sent aboard the boat domestic quadrupeds, wild beasts of the steep,
persons of every skill and craft...” (See Gilgamesh XI: 81 – 7.0*

Coping this Babylonian story, the Hebrews identified their deity Elohim as the first bio-genetic exterminator on earth through worldwide flood. This is evident in the following statement: “And God saw the earth, and behold, it was corrupt, for all flesh had corrupted their way on the earth.”

All flesh is indicative of the entire genetic stock present on earth at the time. The gods declared them be genetic and moral imperfect. Is this a form of Darwinism where the “less fitted” is destined for annihilation? If humans were that corrupt, sinners and imperfect in the eyes the gods, why did they then proceeded to exterminate other bio-life forms? Were trees and animals also committing sin? In Genesis 7:2 -3, we learnt thus:

“The Lord then said to Noah, “Go into the ark, you and your whole family, because I have found you righteous in this generation. Take with you seven pairs of every kind of clean animal, a male and its mate, and one pair of every kind of unclean animal, a male and its mate, and also seven pairs of every kind of bird, male and female, to keep their various kinds alive throughout the earth. Seven days from now I will send rain on the earth for forty days and forty nights, and I will wipe from the face of the earth every living creature I have made.”

The above stories shows that the gods were the first transgenic, the first transhumanists, the first posthumanist and the first trans-biologist who engaged in biospheric modification. The reason for the selection of the few “fitted” to survive the flood is an example of eugenics. In the Sumerian story of creation, there were many human prototypes which the gods designed but later found them to be genetically inferior hence they were caused to extinct by the same gods who created them. Some researchers were of the view that extinct anthropomorphic apes were proto humans. They carry genetic traces found in man today. For example, Neanderthals were said to be the genetic ancestors of non Africans. Max Planck Institute for Evolutionary Anthropology in Germany completed their research which concluded that Eurasians carry up to 2–3% of genetic material found in Neanderthal. Again, did the gods practice transgenics?

Conclusion

In conclusion, the trajectory of man's scientific dream is boundless in the contest of the modern world. Since those who control science and technology control the world, humanity must be alert to the potential danger of consecration of powers in the hands of powerful unethical technocratic elite. Already man possesses the knowledge of atomic energy which can pulverize biological life forms on earth in an instant. John Emerich Edward Dalberg-Acton (1834 -1902) gave a cautionary advice to humanity in his famous statement that: "Power tends to corrupt, and absolute power corrupts absolutely. Great men are almost always bad men..." The propensity of modern materialists to interpret reality based the scientism viewpoint could deliver "absolute power." One area which modern science wants to colonize and dominate is the biosphere. Ethical improvement of living organism should and ought to be promoted above selfish bio extinction anger of transhumanism. In the end, the war is between universal natural law and unnatural law of material science. Let us therefore chose our side wisely so we do not engineer our own self-extinction.

References

- Zacharia Sitchin, *Genesis Revisited*, HarperCollins Publisher, NY, 1990,
- Niki Vermeulen et al, *Bio-Objects: Life in the 21st Century*, Routledge, NY, 2016
- Dr. Eben Alexander, *Proof of Heaven: A Neurosurgeon's Journey into the Afterlife, an American neurosurgeon*, Simon and Schuster Paperbacks, NY, 2012
- Robert Wiener, *Cybernetics or Control and Communication in the Animal and Machine*, MIT Press, Cambridge MA, USA, 2019,
- James Badro and Michael Walter (ed), *The Early Earth: Accretion and Differentiation* (2015), published by American Geographical Union.
- Ramnan Prinja, *Universe Rock: The Complete Guide to Space*, QEB Publishers, 2012.
- Eben Kirksey, *The Mutant Project: Inside the Global Race to Genetically Modify Humans*, Published by The Mutant Project, NY, 2020.
- Duncan Lunan, *Man and the Stars: Contact & Communication with Other Intelligence*, Sourvenir Press Ltd, 1974
- Wayne McRoy, *The Autism Epidemic: Transhumanism's Dirty Little Secret*, 2019
- Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History*, Henry Hold & Company, NY, 2014.
- Joseph Frail, *Mother Earth's Revenge: Unexplained Consequences*, 2013.
- Roberto Manzocco, *Transhumanism- Engineering the Human Condition: History, Philosophy and Human Status*, Springer, 2019, Switzerland.
- Jerry Bergman, *The Darwin Effect: Its Influence on Nazism, Eugenics, Racism, Communism, Capitalism & Sexism*, 2014

R.U Sirius & Jay Cornell, *Trancendence: The Disinformation Encyclopedia of Transhumanism and the Singularity*,
Kenneth Goffman and Jay Cornell, San Francisco CA,
2015

Chapter Twenty

OPEN GRAZING IN NIGERIA: A THREAT TO HUMAN LIFE AND ENVIRONMENTAL DEGRADATION

Nnoruga, Nnaemeka James, PhD

Department of Religion & Human Relations

Nnamdi Azikiwe University, Awka.

[*jn.nnoruga@unizik.edu.ng*](mailto:jn.nnoruga@unizik.edu.ng)

Executive Summary

Open grazing in Nigeria is now a source of major crisis in Nigeria, hence the enactment of laws by different states house of assembly in different states of Nigeria become a necessity. This crisis has reached to the extent or point that lives are being lost daily in different localities and community. Not only that lives are being lost, depletion of environment is going on due to the activities of cattle rearing. The ecosystem and their environmental assets such as fertile soil, clean water, forests and biodiversity are greatly threatened towards extinction, degradation, and so on. Though the cattle rearing or open grazing provide their own services to economic growth of the Nigerian, but the losses being experienced or incurred is now out weighing the supposed gains towards the economic growth and maintaining biological foundations for human and non-human life. This explains why the Nigerian people are experiencing acute environmental crisis in different forms due to open grazing. A sociological research undertaking in this write-up is showing that many factors are responsible for these crises which are being experienced in the Nigeria society. Apart from some factors development that is on-going contributed to the issue at hand. The effects and implications are being discussed in this write-up.

Keywords: Open Grazing, Fulani Herdsmen, Environment, Nigeria, Human Life, Degradation

Introduction

The open grazing among other meanings can be seen or understood as the practice of roaming about with animals including the human beings who pilot and guide their ways through the grazing routes in any open fields, plains and nearby bushes in search of pasture, food, water and shelter for the animals. This implies that grazing is about allowing livestock to directly consume the growing forage, gasses, legumes, and forbs in an open plain, valley or hilly places. Infact the grazing can take place wherever is accessible for the rearers but preferably in a pasture or rangeland. Grazing on its own provides good nutrition and other benefits to the animals in question being reared, this at the same time fertilizes the land in which the animals grazes because its dumps are sources of manure to the crops and fertilizing the soil.

In Nigeria, grazing of animals were not initially seen as problem till recently, the problem of killing, destroying of agricultural products, spreading of diseases become rife in the societies or states in Nigeria. The most common grazing problem comes through the cattle herders who roam about with their cattle from states to states. Human lives, agricultural products and properties are lost daily due to the roaming and clashing of the herders and farmers whose crops or agricultural products are being destroyed by the cattle. Hence there is cry for ranching as it is the global practice rather than roaming of cattle in the society and places meant for human beings.

Sequel to the above condition of lost of human lives, destruction of agricultural products and properties, grazing laws or rights were enacted to enable any user to pasture their livestock to feed

or graze in a given area. Earlier in the Nigerian history the traditional practice of grazing has been no man's affair and rarely disputed or become a source of battle because the amount of undeveloped and unsettled open land were in large quantity. But with the increase in population of the Nigeria people things began to turn around to the extent of being bloody affair. It is on record that the initial grazing law of 1965 was only applicable to the states in Northern part of the Nigeria which has not adequately curb the problems of clashes seen in Nigeria and the climatic depletion in the eco-system. This was affirmed by Mohammed (2021) when he said that the only grazing law that existed in Nigeria was the Northern Nigerian Grazing Law of 1964/1965 that was enacted by the Northern Nigeria Legislative Assembly. But with the collapse of regionalism all pre-existing law extinguished. Hence there is no grazing right in Nigeria as of today but it is a sort of privilege that the herders are enjoying or operating on as of today. This privilege being granted or given is being mismanaged today in the Nigerian society.

This write-up seeks to investigate the effects of the open grazing in Nigeria and what the government of Nigeria is doing to curtail the menace or situation which is being caused by the open grazing in Nigeria. At the same time to balance the situation for the cattle meat (beef) is needed by the Nigeria and other agricultural products are needed also. For non can displace the other both in the economic growth and healthy living of the populace in the Nigerian nation. The solution will also be proffered to the already existing solutions which may have been given by the government of Nigeria. This also is necessary because climatic change which is the global issue today needs to be addressed towards restoring the climatic hazards which is already taking place in one way or another which is affecting the world and the human lives.

Traditional and Conventional Grazing in Nigeria

Grazing of animals in Nigeria is an aged long practice among the farmers in Nigeria. Though some regions of the country like all the Northern parts of Nigeria took it as business while the Southern part of Nigeria mainly took it as a kind of subsistent farming. In the Southern part of Nigeria where it is mainly for subsistent and micro farming, there is no such problem among the farmers or village dwellers as regards to destruction of cultivated crops or other things. Infact the owner of the cattle or the animals are penalized heavily when the animal is seen going or moving about freely in the village circle or when it enters any farm land. The task force will apprehend and cease the animal until the owner comes to pay some amount of money in exchange for the roaming animals belonging to him/her. Here the animals are kept in the compound of the owner and its forage or food is given to them from time to time from waste that comes from the home. Sometimes some of the animals or cattle are taking out for feeding outside the compound with rope tied on the neck or one of the legs for sedentary grazing in the bush. This animals or cattle are sometimes being taking to another place after some hours and then brought back to the compound in the evening in a manner that prevents them from straying into cultivated farm lands (Chukwuemeka, Aloysius and Eneh, 2018). The only time or situation you will see a roaming animal is the one that belongs to the deity of the area concerned, though it is no more seen due to growth in civilization.

From the above we see that the animals are fed with grasses and waste foodstuffs from the houses or compounds, this ensures for adequate feeding of the animals. These animals being reared at home are not for commercial purposes unless when the animal gives birth which are taking to market for sale. The animals are consumed when it suddenly dies, in this case some members of the village people are consulted for “mercy buying” of the

animals, especially when the animal is cattle or big goat. It is sold for any amount to the group of villagers who agreed willingly to buy it, to avoid being a total lost to the family or the owner of the animal. Finally, as of today the southern parts of Nigeria consume more of the cattle meat being produced by other regions of the country so it is needed despite the crisis going on. Many scholars affirmed and agreed that raising or herding of cattle or any other animals in Northern part of Nigeria, especially among the Fulani ethnic group differs greatly from the Southern part of the Nigeria. According to Ezeownuka and Igwe (2016) the Northerners especially the Fulani tribe are the largest pastoral nomadic group in Nigeria, herding cattle, goats, sheep and so on. Unlike the Southern part of Nigeria, the Fulani herdsmen keep and sustain their herds both for subsistence and commercial purposes. They do this or raise their animals through open grazing. Many factors can be responsible for the open grazing in the Northern part of Nigeria, at least for the fact that 90% of the population are into animal husbandry, again they are doing it in great quantity and for commercial purposes. Logically there may be no enough land for daily rearing of the animals among the herdsmen and seasonal changes, hence the clashes among them and the need for migration into other parts of the country for proper feeding of their animals.

This calls to mind the story of Abram and Lot in the book of Genesis 13: 5-13 (The New Jerusalem Bible):

Lot who was traveling with Abram, had flocks and cattle of his own, and tents too. The land was not sufficient to accommodate them both at once, for they had too many possessions to be able to live together. Dispute broke out between the herdsmen of Abram's livestock and those of Lot...Accordingly Abram said to Lot, "we do not want discord between us or between my herdsmen and yours, for we are kinsmen. Is not the whole land open to before

you? Go in the opposite direction to me: if you take left, I will go right, I will go left." ... So Lot chose the all the Jordan plain for himself and moved off eastwards. Thus they parted company.

Moses was also a herdsman as was seen in his early life where he was rearing the animals of Jethro his father in-law for years. The above narratives shows that pastoral nomadic life was as old as man and that it did not start in Nigeria, it is practiced all over the world both as source of income and as a cheap source of food or animal proteins consumed all over the world.

Fulani tribal group who dominate the Sahel region are the best known and most numerous of all the pastoral groups in Nigeria. They do this mostly through open grazing as of now in Nigeria this involves young men who go about with the animals in the plain open land feeding them with forages seen in the fields. Chukwemeka, Aloysuis and Eneh (2018) noted that their women engage in culinary services, cook and sell animal products for the upkeep of the family. Sequel to the itinerant nature that is involved, the Fulani keeps migrating from one place to another. And as such they do not have permanent abode or owe lands for settlements, rather they live in camps which are shifted frequently as they migrate from place to place. But today, with increase in population, developments, agricultural intensification, environmental degradation and climatic change going on every day, the society today do not accommodate anymore the type of pastoral nomadic life being practiced by herdsmen.

This calls for conventional ways, acceptable globally in raising or herding of the animals to avoid conflicts and destruction of lives and property in the society. Globally, ranching has been the usual practice by many countries of the world. A ranch according to Wikipedia (2017) is an area of land, including various

structures, given primarily for ranching, the practice of raising grazing livestock such as cattle and sheep. Among other things, it is also a method used to raise less common livestock such as horses, elk, ostrich and so on. Ranches generally consist of large areas but may be of any size desired by the owner or organization. Among other things, ranching has some benefits which are needed in Nigeria to curtail the problems of farmers and non farmers in Nigeria. Ranching helps in the production of healthier animals, provision of employment which is highly needed in Nigeria to reduce insecurity. Ranching leads to promotion of peaceful co-existence, this ensures that rearing of animals are done in every part of the country which in effect will reduce the scarcity of cow meat and dairy food. The constant harassment of farmers by terrorists and armed bandits will drastically reduce which will ensure proper supply of agricultural products to the people who needed it and equally ensures stability of the economy (Yinka, 2014).

This conventional and globally accepted way of raising cattle (ranching) is being advocated by the people of Nigeria in the recent time to solve the problem of insecurity ravaging the country farmer and herdsman crisis. Efforts are being made by the Nigeria government to build ranches being proposed by various state legislators through their anti-open grazing laws. According to Abubakar (2021) the governor of Kastina state (Aminu Masari) confirmed that the state has received N6.25 billion from the Federal government of Nigeria for ranch development projects. According to Abubakar the project is intended to check clashes between farmers and herders which have snowballed into banditry in states across Nigeria's North-west and North-central regions. The projects also involves the construction of feeder roads, slaughterhouses, solar-powered boreholes and police stations on ranches, rehabilitation of

existing infrastructure such as dams, dispensaries, veterinary clinics, stock routes and pasture development.

This is done in many other states of Nigeria, apart from solving the security challenges, ranching also provides jobs to many teeming youths. Osogbo (2021) also affirmed that ranching and anti- open grazing has reduced the deployment of young boys for open grazing. This means that any young boy caught herding would be arrested and the adult that hired such person would also not escape justice. From the above analysis, ranching or grazing reserve is being adopted gradually by the people of Nigeria for security issues and in compliance with world best practices. This also confirmed by Bello (2021) that a state may even decide that both ranching and grazing reserve can co-exist side by side, so it is a matter of preference by individual state. Awogbade (1987) also affirms that the current situation of the promotion of grazing reserves is official Nigerian government policy, and is being put into practice by several of the Northern states (Kaduna, Bauchi, Plateau, Gongola and Borno).

Impact of Open Grazing on Human and Environment Life

The environmental sustainability remains the concern of every human being on the surface of the earth hence the clamour for the protection and care being heard all over the world towards the climatic change. The environment ranges from living and non living things found in the air, sea and underground. The human beings are much concerned by their environment because it is the source of their daily livelihood. The environment has over the years remained a major factor over which man relates with and remained at the centre of man's life (Chuka, 2019). So any threat or challenge to environment is a threat to human life and quality of life in the world. Dryzek (2005) addressing above issue states that:

Environmental challenges are threats to the capacity of the planet to support life, especially human life. The threat in question involve degradation of the global environment through pollution; exhaustion of earth's natural resources (fossil, fuel, minerals, fisheries, forests and croplands); prolusion explosion; scarcity of essential raw materials; disastrous effects of deforestation; increase in global warming; ozone depletion and its concomitant threats to human security. (p. 13).

The global climatic change taking place daily obviously came from the changes taking place in the environmental relations or activities of man on earth which either depletes or builds up the environment. The environmental challenge as is known today is an overall crisis which demands or require a holistic response. These challenges or threats are great danger to the global commons like the oceans, the sea, the ozone layer and the climate system, which are a life support system for humankind as a whole (Chuka, 2005). With the above challenges to human life and survival, the world has seen or understood the need for global cooperation towards finding solutions to prevailing environmental threats or climatic changes.

Open grazing of cattle from one place to place impacts heavily on the society upon which it is carried out. Grazing of animals in the open fields can result to so many things. According to Chukwuemeka et al (2018) open grazing can result to increase in desertification through long term over grazing, particularly in the semiarid rangelands, water and environmental pollution through animal wastes, increased in greenhouse gas effect, since grazing ruminants produce methane as an end product of rumen digestion. The destruction of farm lands and farm produce are not left out in the impacts of open grazing which are causing terrible crisis in the states of Nigeria.

Beyond the above effects, open grazing is an avenue through which transmission of communicable diseases are transmitted all over the world. The animal diseases and human diseases are easily transmitted due to migration involved in the open grazing. The animals in another region are affected when they are being reared from one place to the other. Equally the herders may contact disease from their animals and humans and transferred it to human being in the process of migration. The herders may at the same time be affected when they come in contact with any communicable disease ranging in region they migrated to. For example the corona virus disease (covid-19) can be contacted by any herder when he migrates to a strange place or region.

Herders and farmers crisis are rampant in Nigeria, farmers fight back when their crops are destroyed by cows, while the herders at the same time destroy the farmers' products, this results to the constant shedding of blood seen in Nigeria between these two groups of people. Though, historically according to Chukwuemeka et al (2018) relations between herders and sedentary farming communities have been harmonious. They lived in a peaceful, symbiotic relationship with herders' cattle fertilizing the farmers' land in exchange for grazing rights. But tensions have grown over the past few years. Many have been killed and displaced in parts of Nigeria.

Some of the herders and farmers clashes that have taken place in Nigeria are many but some are widely known. The clashes have claimed a lot of lives which were reported by different media both international and national media. Idowu (2017) affirmed that information released by the Global Terrorism Index (GTI) ranked the Fulani herdsmen as the fourth deadliest terrorist group in the world, after the Islamic state in Iraq and Syria (ISIS), Taliban and Al- Shabaab, showed that in 2014 more than 1200 farmers and ordinary people lost their lives, excluding destroyed

properties and burnt houses. In the South-east of Nigeria many herders were seen carrying weapons while herding their cattle, instead of normal sticks and few little bags. These weapons scare the farmers who watch their farm being destroyed by the cattle. The causes of the clashes are known but the Federal government of Nigeria always failed to address the issue. At certain points the clashes are blamed on the herders that migrated from neighbouring countries that have the same boundaries with Nigeria.

Some notable clashes according to Global Terrorism Index in 2015 resulted in 800 deaths and in the year 2016 further incidents in Agatu, Benue and Nimbo Enugu state. In April 2018 Fulani gunmen allegedly killed 19 people during an attack inside the church, afterwards they burnt dozens of nearby homes. On 11 February 2019, an attack on an Adara settlement named Ongwar Bardi by suspected Fulani gunmen killed 11 people. Then reprisal attack by Adara targeted settlement of the Fulani killed at least 141 people with 65 people missing. The attacks took place in Kajuru local government of Kaduna state. Some speculated that the motive was to destroy specific communities in the local government. There are countless number of killings and displacement resulting from farmers and herders clashes going on daily basis which are not heard or reported by media. And solution to the problem seems not to be in sight, yet many states in Nigeria have enacted anti grazing laws, enforcement remains the problem so that lives may be saved. In the South east these clashes are common and almost seen as a normal occurrence where one or lives must be wasted without being reported to the hearing of anybody except the community concerned.

Suggestion and Conclusion

The exponential growth both in economic activities and population growth of human beings on the surface of the earth

necessitated the changes in everything done by human beings which include climatic change or environmental challenges, affect the stability or the capacity of the earth to support life adequately. According to Chuka (2019) environmental challenges is an overall crisis seen as a set of interlocking problems that require a holistic response globally. The realization of these problems by the communities, states, countries of the world elicited efforts leading to the clamour for solutions towards the climatic change taking place daily. Hence the need to combat the sectional and global rampant environmental degradation and deterioration going on all over the world become very important.

This climatic change is no doubt real considering the inconsistencies in the realm of biosphere, atmosphere, hydrosphere, and lithosphere. The negative changes in the environment are seriously affecting the herders in Nigeria which led them to migrate from Northern part to Southern part of Nigeria for better forage for their animals. The process of this migration has caused and is still causing a lot of havocs among the communities in the Nigerian societies. This led to enacting of anti-grazing laws by different states of Nigeria to prevent incessant killings and clashes going on among the herders and the farmers in different communities. These ills threaten the peace of the community necessitated the need to create the grazing reserves and ranches in parts of the country.

Again, the government of Nigeria should revisit its proposal on allowing migrants from the neighbouring countries of the Economic Community of West African States (ECOWAS) to enter without their permit. These free movements without check will continue to encourage incessant flow of criminals and terrorists, bandits from other countries. This makes the country to be unsafe for the populace and unsafe primarily for economic

activities. These free movements encourage the carrying or smuggling of arms or ammunitions into the country. And recently, the reports are that the herders are carrying weapons instead of their little sticks and bags which are normally used for checking and protecting their animals. Many terrorists enter the borders of Nigeria in the name of being herders from neighbouring countries. To end these crises it is good to close the borders from all migrants except after proper checking them and confirming them as genuine citizens of other countries with intention of doing legitimate business in Nigeria.

Again to curb these clashes, governments in all levels from town unions to local governments, to state and federal levels should adopt the concept or principles of Igwebuike which according to Kanu (2015) entails solidarity between the people governed and the government. To control the clashes between the farmers and herders, the people and the government should work together to end the crisis. Igwebuike ideology is highly needed in resolving the on-going clashes and at the same time maintaining peace among the people, for the farmers and herders need to co-exist in society for healthy living towards food production. The farmers and their farm need to be protected, again the herders ought to raise their cows for both are source of economic growth in the world today.

References

- Abubakar, A. M. (2021). Cattle ranching: Kastina receives N6.2 billion from Nigeria Government, *Premium Times*. www.Premiumtimesng.com. Retrieved on Oct 17, 2021.
- Awogbade, M. O. (1987). Grazing reserves in Nigeria. *Nomadic Peoples*. 23,(1) 19-30
- Bello, S. (2021). Regulatory Guidelines for cattle ranching and grazing reserves in Nigeria, *This day* www.thisdaylive.com. Retrieved on 16 Oct 2021.
- Chukka, E. (2019). *International environmental relations*. Awka: Giniks Publishers.
- Chukwuemeka, E.E.O., Aloysuis, A., Eneh, M.I. (2018). The logic of open grazing in Nigeria: Interrogating the effect on sustainable development. *Int J Fam Busiess Manag* 2(1): 1-17
- Dryzek, J. (2005). *The politics of the earth: Environmental discourses*. New York: Oxford University Press.
- Ezeonwuka, I.O., Igwe, A. U. (2016). Emerging challenges in Nigeria's national security in the twenty first century: the Fulani herdsmen menace. *Asian Journal of Multidisciplinary Studies*, 4(5),204-215
- Global Terrorism Index (2015). Institute for Economics and Peace. pp. 43-44.
- Idowu, A. O. (2017). Urban violence dimension in Nigeria: Farmers and herders onslaught. *AGATHOS*. 8(1)14 187-206.
- Kanu, I. A. (2015). *A hermenentic approach to African traditional religion, theology and philosophy*. Jos: Augustinian publications.
- Osogbo, T. A. (2021). Fulani herders meet Osun government, promise to embrace ranching, *The Guardian*. www.guardian. Retrieved on 17 Oct 2021.

Shareef, A. M. (2021) The grazing reseve law : Does it exist. *Daily Trust*. www.dailytrust.com

Wikipedia, (2017) Ranch culled from en.m.Wikipedia.org

Yinka, A. (2014). 6 benefits of ranching according to Ekweremadu. www.information.com Retieved on 15th October 2021.



A Publication of
Association for the
Promotion of African Studies