

## REVIEW ARTICLE

**The Ethical Dimension of Environmental Problems: Uncovering Indigenous Environmental Knowledge for Modern Environmental Ethics**Yohannes Eshetu<sup>1</sup>

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## Abstract

The study explored the value of indigenous environmental knowledge for modern environmental ethics. The study principally relied on analysis and reflection of secondary sources. Hitherto, much scholarly discourse has resorted toward science and technology to form the key for seeking remedy for environmental risks and problems. This trend, however, has recently been challenged and critiqued by environmental philosophers. The article, therefore, attempted to open up a new vista of environmental stewardship from the view point of ethical philosophy. For much of human history, indigenous knowledge had been denigrated as backward and antithetical for science and progressive ideas. However, it has recently received considerable attention among academicians to challenge and even to uproot the orthodox view that put emphasis on science and technology as the only category through which we come to understand humanity and the natural environment. Hence, this study revealed that indigenous environmental knowledge, such as the Oromo, play a pivotal role in providing valuable insight into and wisdom about environmental stewardship and a holistic conception of nature. The study concluded that the synthesis of indigenous environmental knowledge and modern environmental perspective would enrich our understanding of the underlying causes and remedy for environmental problems more effectively than each of them does discretely.

**Key terms/phrases:** /Indigenous/Environmental knowledge/ modern environmental ethics/

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## 1. Introduction

### 1.1. Background to the Study

The current ecological crisis has become a platform for scholars and environmental activists to discuss and debate about the importance of indigenous environmental knowledge for a conscious articulation of modern environmental perspectives. Various cultural groups have their own way of looking at their natural environment. It is, therefore, quite important to uncover the values and worldviews of different cultural groups that have depicted a friendly relation between human beings and non-human nature. Cognizant of this fact, scholars have sought cultural worldviews, in Africa or elsewhere, which could arguably be promoting stewardship and respect for the natural environment. It is only by such a curious re-examination of traditional values and philosophies coupled with modern environmental perspectives that we can deal with the global environmental crisis effectively. The distinction between “traditional” and “modern” is not hierarchical; instead it designates the existence of different but equally valid knowledge systems (Workineh, 2005).

The force of globalization, which has turned the world into a small interconnected web of village in terms of its various manifestations, has caused a strain towards indigenous people to undermine their local knowledge and wisdom in favor of the dominant western paradigm. The propensity to unify and engulf diverse value systems in a single universal value has rendered a parochial sense of seeking remedy towards the ecological crisis. The total scorn of indigenous knowledge<sup>2</sup> by the dominant mainstream western thought will reduce the likelihood of seeking relevant cultures which contain valuable insight and wisdom for addressing the environmental problem. Here I am not blindly accusing the western system of thought; instead I am arguing in favor of taking seriously the various voices other than the dominant western paradigm that “seem to view the web of life as an interconnected, whole system, which is in stark contrast to the compartmentalized worldview found in western thought” (Plessis,2005, p.3). Instead of taking the western way of thought as panacea for all problems regarding the harmonious co-existence of man and nature, we should equally give emphasis for intercultural dialogue between Indigenous worldviews of Africa and the west. This is the position that this article is arguing for. In what follows, I will argue robustly that most African cultures contain much wisdom with regard to living in harmony with the natural environment.

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<sup>2</sup> A number of terms are used interchangeably to refer to the concept of indigenous knowledge (IK), Traditional Knowledge (TK), indigenous technical Knowledge (ITK), local knowledge (LK) indigenous knowledge system (IKS).

## 1.2. Rationales

With the emergence of modernization perspective, among others, indigenous knowledge had been denigrated as backward and antithetical for science and progressive ideas. This attitude has contributed a lot to a decline in local people's self-confidence, and has brought about their strong dependence on external solutions (Yohannes, 2000, p.22). However, it has recently received considerable attention among academicians to uproot and even to challenge the orthodox view that accentuate on science and technology as the only category through which we come to understand humanity and the natural environment. In the other direction of the dominant Western and Christian ethical thoughts, which are more of anthropocentric<sup>3</sup> in their nature and foster an exploitative relation between human beings and nature, there are various cultures and indigenous knowledge systems that exhibit a benign relation between human beings and nature.

When we come to the African context with regard to environmental ethics, scholars have an ambivalent conception to the African worldviews. Some scholars like Callicott (1994), for instance, insist that African worldviews are predominantly anthropocentric despite some good insights he found in some cultural groups- the Yoruba in Nigeria and the San in South Africa. On the other side of the debate, scholars such as Workneh (2005), Omari (1990) and Ramose (2002) claim that various cultural groups in Africa have indigenous environmental worldviews which portray a holistic conception of nature. Thus, this article tries to present the views of both sides and endorses the latter view and argues for it.

Moreover, the article is also aiming at inquiring the importance of indigenous environmental knowledge for a deliberate articulation of modern environmental perspectives by focusing upon the environmental worldviews of the Oromo of Ethiopia. The article also examines the factors that could best explain the environmental adversity that African indigenous people face today. The article will also open up a new vista of environmental stewardship from the vantage point of ethical philosophy. Of course, there have been numerous empirical researches done on the role of indigenous knowledge on the environment. However, overwhelmingly these empirical studies have been focusing on exposing indigenous environmental knowledge from sociological and anthropological points of view. The article, therefore, attempted to address the following basic questions:

- What is/are the worth of indigenous environmental knowledge and its implication for modern environmental ethics?
- How is it possible to make a bridge between Oromo indigenous knowledge and modern environmental knowledge?
- What role environmental ethics can play in addressing environmental problems?

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<sup>3</sup>*Anthropocentrism is the view that regards humans, their interests and their well being as the sole object of moral concern and the sole bearers of moral standing.*

## 2. Conceptual Framework

### 2.1 The Ethical Dimension of Environmental Problems

Since the late 1960s and early 1970s the issue of environmental crisis has become the concern of scholars, environmental activists, governments, NGOs and other concerned bodies. Wiredu (1994, p.30) rightly puts the concern as “[t]he environmental dangers of our times have become so gross as not to escape any moderately observant citizen of the modern world philosopher or layman.” As a result of this, a number of international conferences and meetings have been organized in an effort to bring about working solutions that invoke indigenous environmental Knowledge a center stage. It becomes frequent to hear the effects of pollution, environmental degradation and depilation of natural resources, the thinning of the ozone layer in the world. Related to this, the adverse effects induced by environmental crisis have a great deal of impact on countries development strategies and endeavors.

One central reason why such problems getting worse and worse time to time, instead of being steadily relieved and even checked is due to the fact that we have not yet got into the heart of the underlying causes and remedy for it. There is a tendency in contemporary mainstream thinking which overwhelmingly treats such problems as scientific, technological, or political problems. However, they are much more than this (Des-Jardins, 1993, p.54). Until recent times people put their faith and confidence on science and technology for the solution of environmental problems (Jacobs, 1999, P.21). Politicians and decision makers also assume that science and technology form the key to the problem of the environment. Sunqvist clearly puts this point as follows: “it is obvious that environmental questions in contemporary western democracies are largely defined as scientific matter” (quoted in Stenmark, 2002, p. 11).

This fact suggests that people pay little emphasis for the ethical dimension of environmental problems and for their solutions. According to Michael Jacobs (1999, p. 8), there are reasons why people put confidence (consciously or unconsciously) on science and technology. One possible explanation is that the ecological threats which confront us are often not immediately accessible to our ordinary senses. Most people believe that the present environmental problems need a complex scientific devices and knowledge. Another underlying reason might be that since science provides objective answers which are based on fact in a field where otherwise emotions and conflicts of interest abound, it is only natural that we should make use of science to guide us in this matter.

However, in recent years, environmental philosophers and other thinkers challenged the supposition that only science and technology would bring a solution for environmental problems. For instance, Stenmark (2002, p. 8) argues, “[i]t has often been observed that environmental problems have an ethical dimension.” These philosophers, however, don’t deny the relevance of science and technology in our understanding about environmental problems. Rather they want to incorporate the ethical dimension of environmental problems to science and technology. In what follows, I will elaborate the ethical dimension of environmental problems and will

show the difference between the factual scientific explanation and ethical explanation of environmental problems.

In order to grasp the ethical dimension of environmental problems, I think it is better to see it in comparison with the limitations of science and technology. Stenmark states that science can tell us what is the case, why it is the case and what can be done to change things (2002, p.8). For instance, science provides us the following information: the level of the increase of CO<sub>2</sub> in the atmosphere, the decrease of biodiversity, the polluting concentration of various chemicals and information about the thinning of the Ozone layer and so on. Finally technology provides us with the practical means required to carry out these changes.

However, Stenmark argues, “we are unable to develop an environmental policy or carry out certain environmental measures purely on the basis of this scientific information” (*Ibid*). Scientific explanations fail to forward value judgments that are relevant for environmental policy and decision making. Rather, scientific explanations remain at the level of describing how or why something is the case. He states that “the idea that ecology (or some other science) can tell us what attitude we ought to have towards nature is unfounded” (2002, p.10). Of course, this does not mean that ecologists cannot give us empirical knowledge relevant to environmental problems. Instead, Stenmark says that it is impossible to deduce how human beings ought to behave and act with the ecosystem of various kinds with a mere scientific explanation (*Ibid*). This point suggests that environmental philosophers wish to relate the question of environmental problems with the normative assessment of the relation between human beings and the natural environment. Henderson (1993, p.12) argues:

*... a more reasonable position is that ecology is a scientific discipline a kin any other scientific discipline and one therefore, which makes no direct moral claims, consequently, ecology cannot serve as a moral guide in any adaptation to nature (although it can naturally propose possible measures for adoption), nor is it within its competence to decide what value human beings should assign to nature.*

The distinction between ‘is’ and ‘ought’ is an important point in philosophy. In philosophy, there is what we call “the naturalistic fallacy” which arises when there is a failure to distinguish questions of fact from questions of value. This fallacy is committed when we argue that because something is the case, it ought therefore, to be the case (Henderson, 1993, p. 176). To put it differently, whenever we say something is good or bad, valuable or worthless, we must go beyond describing what is normal or natural. Stenmark (2002, p. 11) argues, “[b]ut what is good or evil, worthwhile or objectionable cannot be deduced automatically from a description of what constitutes a natural/artificial process or state of affairs in nature.”

The above points show that when we limit ourselves at the level of analysis of environmental problems based on science and technology, we fail to argue how we ought to act and behave with regard to environmental matters. Science cannot tell us what we ought to do. Rather, it tells us what we can do. This conclusion, indeed, appears to be somewhat shocking for many decision makers and natural scientists. This point was emphasized by Max Weber who observed that “science is like a map that can

tell us how to get into many places but not where to go” (quoted in Hughes, 2000, p. 16).

What are the issues incorporated in the ethical dimension of environmental problems? We can point out the following normative questions:

- What should as we human beings value?
- What kind of beings are we and what do we wish to be?
- What lives we ought to live?
- How should we as human beings behave towards other beings?

These are some of the questions that we encounter in the normative assessment of environmental problems.

To sum up, it is arguable that environmental philosophers stress to see the problem of global environmental crisis in the contexts of a normative assessment of the relation between human beings and nature. Value judgments are therefore decisive when it comes to dealing with environmental problems, and without them it is impossible to make decision whatsoever about environmental issues. Hughes (2000, P.60) clearly states that in order to solve environmental problems, we should consider the following points.

- a) Scientific and social studies of the relationship between human beings and nature and
- b) A critical and constructive analysis of people’s various ethical judgments, their views of nature, their worldviews and the consequences that all these different positions have for the creation of a sustainable society.

Indeed, science and technology are necessary categories in an effort to deal with ecological problems, but are not sufficient in that endeavors. Lyn White (2001, p. 4) rightly states that “what we do about ecology depends on our ideas of the man-nature relationship. More science and more technology are not going to get us out of the present ecological crisis until we find a new religion, or rethink our old ones” (White,2001, p. 5). Unless we examine the underlying assumptions and values that we hold, we can never effectively deal with ecological problems merely because “what people do about their ecology depends on what they think about themselves in relation to things around them” (*Ibid*). Treating ecological problems require another equally important dimension besides science and technology, that is, examining our values and worldviews. “[E]nvironmental and ecological controversies raise fundamental questions about what as human beings value, about the kind of lives we should live, our place in nature, and the kind of world in which we might flourish. In short, environmental problems raise fundamental questions of ethics and philosophy” (*Ibid*). Human beings should rethink about their relationship with the things that surround them, and only such re- evaluation of our beliefs and values would help us to get into the heart of the ecological crisis. Disastrous ecological backlash cannot be avoided “simply by applying to our problems more science and more technology” (*Ibid* 4).

## 2.2. Environmental Ethics Defined

Due to the driving needs and forces of these challenges, environmental ethics, as a distinct field of applied ethics, came in to being in the 1970s to insert a moral dimension to the environmental problem. Environmental ethics is a normative discipline concerned with extending moral thoughts to include both biological and physical nature. “Environmental ethics is the philosophical enquiry into the nature and justification of general claims relating to the environment. It is a theory about appropriate concern for, values in and duties to the natural environment and about their application” (Workneh, 2003). In more concrete terms environmental ethics deals with pollution, population, resource use, food production and distribution, energy production and consumption, the preservation of wilderness and of species diversity (*Ibid*). As many scholars have argued, the western conception of ethics, which is fundamentally anthropocentric, is responsible for the problems induced by environmental crisis. This is mainly because of the fact that in the “traditional” conception of ethics human beings have been regarded as the only morally considered beings, and everything that exists in the universe is meant for the need and satisfaction of human beings. Thus, this paper rejects what Oruka called the “traditional” conception of ethics and argues for a shift towards a new epistemological outlook in which human kind is viewed as part of a complex and systematic totality of nature (Oruka, 1997).

## 2.3. Indigenous Environmental Knowledge- A Brief Overview

The current global environmental crisis has been a good opportunity for the examination of indigenous knowledge systems. Because of this fact Mentzner (1994, p. 163) argues, “[t]he global environmental crisis is serving as a catalyst for far-reaching re-examinations of fundamental values and assumptions.” As Oruka states (1997), “the issues of indigenous knowledge systems have been one of the areas which people give much emphasis along with the global environmental crisis and sustainable development.”

Indigenous knowledge is unique to every culture and society and is embedded in community practices, institutions, relationships and rituals. According to Michael Warren, indigenous knowledge refers to “localized knowledge unique to a particular society or ethnic group” (quoted in Oruka, 1997, p. 270). This definition encompasses all forms of knowledge technologies, know-how skills, practices and beliefs that enable the community to achieve stable livelihoods in their environment (Plessis, 2005, p.25). “[Indigenous environmental knowledge] includes a system of classification, a set of empirical observations about the local environment, and a system of self-management that governs resource use” (Johnson, 1992).

Indigenous knowledge contrasts with the international knowledge system generated by universities, research institutions and private firms. It is the basis of local level decision making in agriculture, health care, food preparation, education, natural resource management, and a host of other activities in rural communities (Warren, 1991, p.56). Indigenous knowledge systems are both cumulative and dynamic. Cumulative means it is firmly rooted in the past and builds upon the

experience of earlier generations. And the tendency to absorb new technological and socio-economic changes of the present makes it also dynamic (*Ibid*). With regard to the dynamic aspect of indigenous Knowledge Workneh states, “rural people don’t merely imported values or stick solely to their ancestral custom. Instead they have tied to improve their tradition in line with the new circumstances and thereby adapt foreign values to their way of life” (quoted in Plessis, 2005). Indigenous knowledge, hence synchronize internally generated knowledge as well as externally borrowed and adapted knowledge (Plessis, 2005). All of this, However, is “embedded in community practices, culturally based value systems... relationships and rituals” (*Ibid*).

#### 2.4. Debate on African Environmental Ethics

My central argument in this article is that different traditions and indigenous knowledge systems have unique way of framing their relationship with the natural environment. These belief systems and cultural values (in Africa or elsewhere) should be critically evaluated and examined so as to come up with a better understanding about the environment. In this regard, I argue consistent with Callicott who says that “the revival and deliberate construction of environmental ethics from the raw materials of indigenous, traditional and contemporary cultures” (1994, p. 231).

Thus, the task of environmental philosophers needs to be uncovering the values of different cultures and indigenous knowledge systems that could promote a friendly relationship between humans and nature. From this we can infer that intercultural comparison among various cultures and traditions serve as an entry point for cultural dialogue and, in turn, contribute for the development of modern environmental ethics. Among others, Callicott strongly supported this idea. He says, “[t]hus detailed cross-cultural comparison of traditional concepts of the nature of nature, human nature, and the relationship between people and nature with the idea emerging in ecology and the new physics should be mutually reinforcing” ( Callicott,1994).

Though Callicott acknowledged the importance of studying and examining indigenous knowledge system for a deliberate construction of modern environmental ethic, little emphasis has been given for African indigenous worldviews. Even Callicott himself attributed an anthropocentric and monotheistic stance for all African indigenous worldviews despite some good insights he found in the worldviews of the Yoruba in Nigeria and the San in South Africa (see Callicott, 1994). So far, scholarly works from a non-western perspective have been concentrated in Latin America, Asia and Australian Aboriginals; but Africa is thought to be a continent where little good insights could be constructed owing to the fact that their worldviews are fundamentally anthropocentric and monotheistic as compared with the worldviews of Asia and Latin America. Surprising enough, Callicott draws the following conclusion about Africa:

*Apparently therefore Africa looms as a big blank spot on the world map of indigenous environmental ethics for a very good reason. African thought orbits, seemingly, around human interests. Hence one might expect to distill from it no more than a weak and indirect environmental ethics, similar to the type of ecologically enlightened utilitarianism, focused on large-range human welfare (Callicott, 1994, p.158).*

This idea of Callicott is also strengthened by Mbiti who made a generalization with regard to African worldviews, and claiming that African worldviews and indigenous knowledge systems lean toward putting human beings at the center of all creation. He says:

*The creator of the universe, God, is outside and beyond it... [and] in Africa myths of creation, man puts himself at the center of the universe from that perspective. It is as if the whole world exists for man's sake. Therefore, the African people look for the usefulness (or otherwise) of the universe to man (quoted in Callicott, 199, p.157).*

From the conclusion of both Callicott and Mbiti, I can raise an epistemological question that how they could have arrived at such a conclusion only by examining the worldviews of very few ethnic groups in Africa. Africa is a large continent marked by diversity of ethnic groups, cultures and worldviews. Thus, it is hardly possible for any scholar, including Callicott and Mbiti, to make such broad generalizations by studying only the views of some ethnic groups. In this connection, Workneh (2005) even calls this intellectual forgetfulness of indigenous African worldviews as a 21<sup>st</sup> century racism as a legacy of the enlightenment project towards Africa.

Despite all these criticisms and allegations, there are scholars who have argued that some ethnic/cultural groups in Africa having good sense of reverence for non-human entities apart from their utility (Omari, 1990; Ramose, 2002; Workneh, 2005). Owing to this fact, many ethnic groups in Africa have worldviews which rendered integrated and holistic attitude towards nature. For example, *Ubuntu* is an indigenous belief system which is widely practiced in central and southern part of Africa denoting a comprehensive moral concept which emphasizes the systematic intricacy and wholeness of the universe (see Ramose, 2002).

### 3. Methods

The methodology used in the study is critical review of relevant secondary sources pertinent to the subject under consideration. Thus, this article made use of the perspectives of philosophy in understanding and examining the value of indigenous environmental knowledge for addressing environmental adversities we are facing today. The article is, therefore, intended to show the importance of articulating and publicizing the indigenous worldviews pertinent to various cultures in general and of the Oromo of Ethiopia in particular from the vantage point of ethical views as opposed to a pure and exclusive scientific study about the relation between man and the environment.

## 4. Result

### 4.1. The Oromo Worldviews on the Environment

Note that the discussion on the indigenous Environmental worldview of the Oromo is not intended to put forward a complete and exhaustive survey and analysis of the world views of the Oromo which is, indeed, beyond the scope and objective of the article. My principal target is to make a philosophical exploration on the value of indigenous environmental knowledge to redress environmental risks and problems by taking the indigenous environmental ethic of the Oromo as a concrete and practical example. My discussion here largely focuses on the worldviews of the Borena, one of the communities of the Oromo people, predominantly living in the southernmost tip of Ethiopia and northern Kenya. The discussion that follows is overwhelmingly based on critical review of secondary sources. I have carefully examined the relevant literature related with the Oromo traditional environmental ethic about natural resource stewardship done by Workineh Kelbessa.

The Oromo, the largest ethnic group in Ethiopia, have a very integrated and holistic worldview which sees human beings as an integral part of the larger biotic community. Normative principles that deal with the relation and interaction between human beings and nature are implicit in the practice and thought of the Oromo society just from the very beginning. Predominantly, According to Oromo's world view human beings are part and parcel of the universe. The relation between man and environment is based on natural ecological balances in which animals, birds, plants, soils, grasses, water, river, lake, ocean etc, can be represented by large number of occurrences in addition to conscious beings./sentient beings/. As a whole, nothing can be exploited without purpose, according to Oromo's world view, because, we are not free to destroy the creation of *Waaqa* or *Uumaa*. All creatures of *dachee* begins from small organism that crawl on earth, walk on earth, stand on earth, float on earth, fly in the *samii* or sky are creatures of *waaqa* (Workineh, 2003). In this sense, these creatures are not only evaluated in terms of economic value since they have naturally value of their own.

The Borena have non-anthropocentric conception in relation to the universe. The place of man in the universe that the Borena attributed to is similar to African ontology/metaphysics in which man is viewed not the master of the universe, but only the center of the universe. In the hierarchy of beings man stands at the center of all creation, that is God, spirit, ancestors, man, animal, plant, and inanimate beings. What makes their worldview non-anthropocentric is that they believe everything in the universe is highly interconnected. This interconnectedness of the universe is governed by a comprehensive moral concept called *Safuu*.

A normative principle called *Safuu* underlies in each and every practices of Oromo Society. Any sort of activity which goes against *Safuu* is believed to be doing wrong on the creation of *waaqa* in which *safuu* may be corrupted or spoiled- *Safuun ni daba*. *Safuu*, as Oromo normative principle, is a mediating category between *Uumaa* and *Uumamaa* or *Waaqa* and *Dachee*, husband and wife, son and father, mother and daughter, man and environment and so forth (*Ibid*). *Safuu* governs people relationship

with God, the environment, and the relationship among members of the community. Indeed, the Oromo moral concept Safuu has a similar connotation with ancient Egyptian moral concept *Maat* and *Ubuntu* in Central and Southern Africa. According to the Oromo worldviews, each entity is believed to have its own Safuu. In general, Safuu is a moral concept which signifies the mutual dependence of everything in the universe including God.

In fact, the reverence that the Borena have shown for their pack animals is highly remarkable. The Borena have traditional customary laws that deal with pack animals, soils, grasses and wild animals. The Borena conception of the universe is, indeed, based on the *Gadaa* system and Oromo religion. According to the Oromo religion, there is a supreme high God called, *Waaqa* who is believed to be the creator of everything. *Waaqa* is the creator of the mother earth which grows plants and animals for human nourishment and sustenance, so that it deserves a great deal of reverence for its own right regardless of its utility. The *Gadaa* system is “a democratic egalitarian system that has its own leaders who conduct government (political, economic, social, judicial, legislative, ritual and military affairs) of the Oromo society for non-renewable eight year terms” (Workineh, 2005).

The Borena have customary laws that regulate their relation with the natural environment and other fellow- men. There are customary laws which prescribe what ought to be man’s relationship with the physical environment. The Borena have formulated customary laws with regard to animals, plants, soils and even grasses, and these laws are enforced and implemented by respective clans designated only for this purpose. More than anybody else members of the respective clans have the ultimate authority to oversee the implementation of the customary laws alluded to them. But this doesn’t mean that other members outside of the respective clan remain aloof from implementing the customary laws. It is only a matter of emphasis. For instance, there are three clans assigned to deal with laws of pack animals- *Macitu-gurguro*, *Digalu-walaji*, and *Karayu-kocota*.

This point ascertains the fact that the Borena have reverence not only for their domestic animals but also for wild animals. In a customary law made in 1996 stringent penalties were made against those who kill and even mistreat wild animals, that is, if a man kills a wild animal, he/she will be penalized by five heads of cattle. The Borena have a reverence for animals even to the extent that they have formulated customary laws dealing with ants- “*seeri mummee seera saree*”. From this we can infer that the strong reverence for animals is not merely based on utilitarian drive. According to the Borena worldview, animals are useful not for pragmatic reason but having also spiritual, social, economic, moral as well as aesthetic value.

According to the Borena worldview, everything is highly interconnected from mother earth up to God. In the Borena worldview there are places where people perform ritual ceremonies called *Arda Jila* which are believed to be sacred lands or places and everything pertains to the land is highly valued. No one is allowed to cut down trees, grasses and kill animals and even the land is not tilted by a single farm tool. The Borena have a great deal of respect for a type of grass type called ‘*Cheqorssa*’. Here, no one is permitted to cut down cheqorssa, for it is believed to have a great role in the ritual life of the society. Only in occasions of great ceremonies

like *heriya* settings, *corbessa* sacrifice and *Irrecha* cheqorssa can be cut down upon the permission of the ritual leader.

The Borena have also a great deal of reverence for horse. *Seera Golaa* is a customary law that is established for the promotion of donkey, horses and mules. Special reverence conferred to these animals due to the belief that they are nearer to humans. Horses play a significant role in the Gadaa system. In the Gadaa system there is a power transition in every eight year which is called in the Oromo language “*Baallii Wal-harka Fuudhuu*” ( Workineh, 2003, p. 68). Even in this great cultural ceremony the process itself cannot be undertaken in the absence of white male horse. The transition of power from one Gadaa to the next one is held only when the two parties sit on white male horse. This shows how much the Borena gives high regard for their horses. Gadaa laws are not eternal in a sense that the laws are continually being discussed and debated consistent with the changing circumstances. Gadaa laws cannot be revised at any time, rather the laws are supposed to be revised in a meeting( assembly) held once in every eight years called *Gumi Gaayyo*. Only this assembly is responsible to revise the already existing Gadaa laws, including the laws of fauna and flora, even if there could be meetings in the meantime. This shows that Gadaa laws are altered and modified after being intensely discussed and debated cognizant of the fact that the complex intricacy exists in the universe.

Mistreating horse is normally morally abhorrent act in the Borena community. If anyone kills a horse, he/she is supposed to pay compensation for the reprehensible act called *gumaa* in which the wrong doer is penalized by paying thirty to ninety heads of cattle. One important case which could show us the great reverence the Borena have toward their horses is that in the Gadaa assembly the first agenda should be the issue of pack animals, especially horses, then followed by the issue of women. This is due to the fact that horses are believed to have human quality; they call them “*unspeakable humans.*” If someone kills or mistreats a horse, he/she is supposed to pay eighty heads of cattle which is almost similar to the penalty conferred to killing a human being. Thus, the issue of the “unspeakable humans” should be first addressed more than anything else. Thus, Borena worldviews underlie the mutual relationship between humans and the natural environment thereby they conceive themselves as part and parcel of the larger universe.

In the Borena worldviews there are also sacred trees. There is a tree called *Arooressa* which is named after a clan called *Arooressa* who are responsible to protect this particular tree species. There are also other sacred trees, such as *madhera*, *Oda* and the like which have symbolic connotation, so that no one is allowed to cut down. Generally, the Borena worldview is highly sympathetic towards the natural environment by conceiving humans as plain members of both biological and physical nature of the universe. Consistent with the integrated and holistic worldviews of the oromo, Georgiades and Delvere (as cited in Plessis, 2005, p.59) noted that “[the African] does not feel himself like a swimmer in a hostile and foreign sea: he is part of this sea, he participates in it as it participates in him.”

Although some aspects of these traditional worldviews still persist, there is still a danger for these worldviews to be easily washed away by the effects of globalization, destruction of traditional worldviews under the guise of economic development and the influence of exotic religions, especially Christianity and Islam.

According to Workineh (2003), the Borena reverence for trees is being gradually eroded due to the effects of Christianity, that is, their reverence for trees and animals is regarded as worshipping of the natural entities, instead of the supreme high God-*Waqaa*. And the fact that the identification of their respect for flora and fauna with worshipping, the indigenous people increasingly feel ashamed of their worldviews as being “primitive” and “uncivilized”. This is mainly mediated through our unfounded Eurocentric biases and prejudices. Indeed, the Borena are not the only ones being threatened by the effects of exotic religions, the same is true with other cultures and worldviews in Africa (see Omari, 1990, p. 34).

Another important factor that has an adverse effect on the African indigenous worldviews is as Omari (1990) rightly expressed the introduction of the market economy and capitalist mode of production, which intensifies people to see their natural environment as merely sources of economic and aesthetic value. In other words, natural resources in the capitalist mode of production are simply meant only for the needs and satisfaction of humanity which is alien to many indigenous African worldviews. According to Omari, the introduction of money economy doesn't only alter the social relationship, but also the values that indigenous people have towards their natural environment. Because of this, Omari (1990, p. 67) says, “Because of the new values inculcated through western education and religion like Christianity and Islam, people now see natural resources of objects for exploitation and profit-making. Resources are used for individual private gain and satisfaction.”

In a capitalist mode of production the value of natural resources is predominantly determined in monetary terms. In connection with this, many African countries nowadays employ a top-down development endeavor which restricts the role of indigenous people to participate in development project design, implementation and monitoring. In fact, this problem is augmented by the fact that many African countries due to their backward economies and their little bargaining power in the international system (in bilateral and multilateral) relations, their policies are direct replica of the developed world who are expected to offer money for development projects and relief assistance. Thus, many African countries have no internal policy freedom, so that they are forced to implement the development models of the developed countries, instead of relying on their own indigenous resources and worldviews. In this regard, Kalu (2001) explains the failure of the development plans especially in south eastern Nigeria due to government's insensitivity to consider the social, cultural, and religious worldviews of the local community. Thus, according to Kalu, any development endeavor should recourse to have high regard for the social, cultural, and spiritual worldviews of the society. Development should be environmentally friendly. And the way we can bring about environmentally friendly development is by giving attention to the cultural assumptions and worldviews of the African indigenous oral and/or written treasures of the people. “Non-formal knowledge systems should not be lost simply because Western attitudes tend to dominate thinking about development policy” (Plessis, 2005, p.56).

People at the community level should be included in any development project design, implementation and monitoring activities, so that we can come up with development projects which are consistent with people's culture, worldviews and basic assumptions. However, this is not yet adequately practiced in many African countries.

*Analysis of attempts to tackle poverty reduction tells us that development interventions have failed. Even worse, they may sometimes have a detrimental effect on people's livelihoods. Western solutions have been used in situations where indigenous knowledge could have provided a better response, but for one reason or another was not even considered to be an option" (Different forms of Knowledge, 2005).*

Thus, I believe that the contemporary ambivalent situation of Africa should be an entry point for African environmental ethicists to dig out valuable treasures of pre-colonial African achievements buried on the ground due to both internal and external factors. Environmental ethics in Africa should have a unique mission due to the long lasting effects of the legacy of colonialism and poor economic status of the continent. In what follows, I will discuss how to synchronize indigenous environmental knowledge with modern environmental ethics.

#### **4.2. Nexus between Indigenous Environmental Knowledge and Modern Environmental Ethics**

The ambivalent situation of contemporary African reality, the way I discussed earlier, is, indeed, a good opportunity for modern African environmental philosophers to study and examine the oral and/or written treasures of indigenous African people towards the environment. In this regard, I see a reciprocal relation between indigenous knowledge and modern environmental ethics. Various indigenous knowledge systems can be taken as raw materials for the development of modern environmental perspectives. By studying and examining the local knowledge systems of various cultural groups, environmental philosophers would produce modern environmental perspectives. Thus, indigenous knowledge systems, like the Oromo worldviews, can be taken as important inputs for the works of modern environmental ethicists. Callicott (1994,p.32) emphasizes this point

*The revival and deliberate construction of environmental ethics from the raw materials of indigenous, traditional and cognitive cultures represent an important and essential first step in the future movement of human material cultures toward a more symbiotic relationship, however, incomplete and imperfect cultures and indigenous knowledge systems*

Similarly, the theories of modern environmental ethicists can be used by peasant farmers and pastoralists. The Knowledge of environmental ethicists can be combined with peasant farmers and pastoralists and make them more efficient and help the indigenous people to have a further knowledge of their environment. In fact, indigenous knowledge systems and the works of modern environmental ethicists are complimentary. Although indigenous farmers and pastoralists have their own strategies concerning the natural environment, the works of modern environmental ethicists could help them to speed it up. Thus, the amalgamation of the two helps to address the problem of environmental crisis more effectively. Workneh argues that indigenous knowledge and modern environmental knowledge represent different levels of the same knowledge. He further argues that the dichotomy between indigenous knowledge and modern environmental knowledge is not natural, rather it is artificial construct. He said that both

indigenous knowledge system and modern environmental knowledge employ the same methods that are relevant for their work. These are: progressive adoptive learning, curiosity, hypothesis, observation, and empirical testing. However, it is undeniable that modern science relies on controlled experiment, captive animal studies, and technological devices such as radio collars or electronic monitoring (2003, p.78). Generally speaking,

*Indigenous knowledge is not in contest and that the two should not be seen as competing with each other. The dialogic relationship... should be seen as supplementation. It is very important that one knowledge system not be regarded as superior to the other, but merely the result of the different (but equal) worldview it stem from (Plessis,2005, p.76).*

Indigenous knowledge systems and modern scientific practices are complimentary, that is, modern extension workers can learn from local farmers and the local farmers can also learn from modern extension workers; and the result of the integrated approach is far better than either of the two. Generally, in Africa development should be construed in such a way that it becomes sensitive to the cultural, social, and spiritual worldviews of the local community and even within this broader framework that we can frame the notion of sustainable development in the continent. Development projects and plans in Africa should be compatible with the broader worldviews of indigenous people without overlooking the significance of global practices and experiences. Thus, the contemporary African environmental ethicists are in a unique historical context to synthesize the modern perspectives with indigenous knowledge systems so as to come up with a new horizon which is not contaminated by colonialism and neocolonialism as well as a perspective deeply rooted in African cultural heritages, worldviews and basic axioms.

## 5. Conclusion

Due to the adverse effects induced by global ecological crisis, the issue of indigenous environmental knowledge has got the attention of philosophers and scientists. As it has been discussed in detail, different ethnic groups in Africa have insightful wisdom towards the natural environment. The paper has examined the attitudes of indigenous African cultures, especially the Oromo, with regard to the natural environment. Despite the negative views of some scholars about African indigenous environmental knowledge systems, the study found out that various cultural groups in Africa have profound and systematic worldviews which designate a friendly relation between humans and non-human entities. The study has shown the fact that various ethnic groups in Africa, such as the Oromo, can provide profound insights which could be taken as important inputs for the works of modern environmental ethicists and policy makers.

Although indigenous environmental knowledge in Africa has construed a more integrated and holistic conception to nature, their value and importance have been rapidly washed away by the effects of globalization both in its material and spiritual forms. The ever-increasing trend of globalization, which promotes homogenization of cultures and worldviews, has posed a serious challenge to indigenous African environmental worldviews by destroying the specific cultural traits under the guise of economic development and the intrusion of exotic values and beliefs, such as

Christianity and Islam, and the disintegration of communal values. Thus, the paper urges modern environmental ethicists in Africa to shoulder the task of re-examining the indigenous worldviews of their respective people, which are being washed away by globalization and neocolonialism, without being shortsighted of the modern scientific paradigm and environmental discourse. The paper also argues the need for integrating indigenous knowledge systems with modern environmental perspectives in such a way that recognizing them to be mutually reinforcing, that is, the one can be an input for the other, and vice versa. It is at the intersection of these two levels of knowledge systems that we could frame the future development of a more genuine and fruitful environmental consciousness in Africa or elsewhere.

The contemporary condition of Africa is not only characterized by economic and political subordination on the west but also in theoretic works as well. It is, indeed, the point of departure for contemporary African philosophers to systematically reflect upon their culture and tradition in order to have access to bring any meaningful alternative to the hegemonic western system. Africa, like any part of the world has its own traditional values and beliefs which if systematically studied could bestow alternative knowledge paradigm to the dominant western system of knowledge. The constructive aspect of traditional African philosophy should be supplemented by the deconstructive aspect. The deconstructive aspect of African philosophy should be aiming at a philosophical de-legitimization of the “myths” imposed on Africa which portray the inferiority of African thoughts and belief systems. This paper, among others, is part of an effort in invoking indigenous environmental knowledge as a tenable and sound input for policy makers in dealing with sustainable environmental stewardship.

## **6. Recommendation**

My recommendation is that African development planners and governments should consult and let effective participation of their local communities in such a way that studying and examining their cultural worldviews. And here at this juncture those modern environmental ethicists come to the front stage. Instead of a top-down approach there needs to be a bottom-up approach of development which gives emphasis for cultural elements and worldviews of the local people. In this venture the role of the Academia is so immense. The intellegentia in the continent should be working in exposing the internal inconsistencies of Eurocentric biases by bringing forth empirical researches on indigenous knowledge systems in order to publicize it to the larger public. The systematic endeavor to deconstruct the Eurocentric biases and prejudices is important to drum up the confidence of indigenous communities towards their indigenous knowledge.

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