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The Rehabilitation of Indigenous Environmental Ethics in Africa

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Introduction

This article examines the rehabilitation of an indigenous environmental ethic and indigenous environmental ethics in Africa. It seeks to provide an understanding of how the many culture-specific African societies view their relationship to the natural world. It aims to contribute to the articulation of environmental ethics grounded in indigenous traditions and inspired by broad ecological perspectives. The article begins with a survey of modern environmental ethics. It will then examine indigenous attitudes towards nature in Africa by focusing on the environmental ethics of the Oromo of Ethiopia. The Oromo constitute the largest ethnic group in Ethiopia. The last part provides a general conclusion.

In this article, I use the terms 'indigenous' and 'traditional' (and sometimes 'local') interchangeably to connote something which was created and preserved by previous generations, and has been inherited wholly or partially and further developed by successive generations over the years. Indigenous knowledge is constantly evolving, and involves both old and new ideas and beliefs. The rural people do not slight imported values or stick solely to their ancestral customs. Instead, they have tried to improve their tradition in line with the new circumstances and thereby adapt foreign values to their way of life. Therefore, indigenous knowledge embodies both internally generated and externally borrowed and adapted knowledge. Indigenous knowledge tells us how people conserve trees, revere wild animals and transmit knowledge from one generation to another generation. The term 'an indigenous environmental ethic' is used to mean the set of values and beliefs of an individual or group of people relating to the environment. It involves individual or group attitudes towards the environment. Environmental ethics is the philosophical inquiry into the nature and justification of general claims relating to the environment. It is theory about appropriate concern for, values in and duties to the natural environ-

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ment and about their application. It is concerned with what the people are committed to do about the natural environment.

Some people might debate whether there is such a thing as indigenous environmental ethics. However, the evidence at our disposal confirms that indigenous knowledge is not just a passing on of folk wisdom in a static way from one generation to the next. Peasant farmers and pastoralists do not passively follow the course of nature. Many peasant farmers and pastoralists critically and rationally evaluate the commonly accepted opinions and practices of their people and thereby develop their own independent views about society and the natural environment. When they are affected by what is going on in the society, they come up with quotable proverbs which originate from their reflective remarks and their thinking about nature. Their view of the value of the natural environment is based on reasoned thought. Accordingly, there are principles of thought (implicit or explicit) in various peasant farmers' and pastoralists' knowledge. It is on this basis that one can talk about indigenous environmental ethics (that is, indigenous theories concerning environmental values and duties) even though one should not claim that peasant farmers and other indigenous people as a whole have developed a system of indigenous environmental ethics. In fact, it would be unrealistic to argue that indigenous environmental ethics and modern environmental ethics have similar status and range of influence. Yet comparisons remain possible and instructive.

In this article, the term 'indigenous environmental ethics' is used sometimes to refer to the ethical views of philosophic sages who have their own independent views, and in most cases it is used as a plural (of 'environmental ethic') to refer to the norms and values of various indigenous peoples. This article aims to develop this idea and show how indigenous environmental knowledge is being rehabilitated in the contemporary world.

Before exploring the rehabilitation of indigenous environmental ethics, I briefly look at the central concerns of modern environmental ethics.

Modern environmental ethics

Although many western scholars have tried to show the value of the natural environment, Aldo Leopold's land ethic has had a considerable impact on the emergence of environmental ethics. He proposed an extension of ethics to cover the living systems of the earth (Leopold, 1966). He states that the land ethic affirms the right of different species to continued existence in a natural state. Human beings should change their role as conquerors of the land community and respect their fellow members, and also have respect for the community as such by becoming plain members and citizens of it. His land ethic thus 'simply enlarges the boundaries of the community to include soils, waters, plants and animals, or collectively, the land' (1966: 219). Leopold extends moral concern to nonhuman animals. His emphasis is on biotic communities, which embraces many species. His environmental ethic is thus holistic rather than individualistic. He formulated the following moral maxim: '[a] thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise' (Leopold, 1966: 240). What

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should be remarked here is that as Vernon Pratt (with Jane Howarth and Emily Brady) has argued (2000), persuasively in my view, Leopold and other environmentalists have taken from ecology scientific support for the view that human beings belong to communities that involve all the animals and plants, and the habitats of those animals and plants living in a specific environment.

Although Leopold has enlarged ethics to include the rivers and the soils, as well as the fauna and flora, his vision is local. His land ethic did not address questions regarding global warming, or ozone holes, the population explosion, sustainable development, or the relationship between the rich developed nations and the poor developing ones (Rolston, 1999b: 131).

However, many philosophers were influenced by Leopold and began the environmental debate in the 1960s. Subsequently, philosophers have tried to bring the natural environment within the purview of ethics. Environmental ethics appeared as a distinct branch of ethics in the 1970s. Environmental ethics extends the scope of moral thought to involve all human beings, animals and the whole of nature, the biosphere, both now and beyond the imminent future including future generations (Pojman, 2000: vi). It deals with pollution, population control, resource use, food production and distribution, energy production and consumption, the preservation of the wilderness and of species diversity.

There are two main approaches in modern environmental ethics: human-based (anthropocentric) and non-anthropocentric. There are different strands of thought within the two approaches.

Human-based environmental ethics stresses that the natural environment does not have intrinsic (non-instrumental, non-derivative) value beyond human beings. In contrast to human-based ethics, non-anthropocentric ethics stresses that things other than human beings should be the proper subjects of moral concern as well as human welfare. It challenges the existing value categories and moral analysis. One group of non-anthropocentric environmental ethicists suggests that ethics should be extended to all living things. Others argue that environmental ethics should be concerned with the well-being of whole species than of individual specimens, with the integrity of biotic communities and the health of ecosystems.

Indigenous environmental ethics in Africa

Despite the fact that advances have been made through recent discourse on the environmental concern of non-western traditions, most of the related research has centred on Asia, Native American Indians, and Australian Aborigines, with little attention being paid to most of Africa. From 1979 to 2003, for instance, only one article that directly deals with Africa (Burnett and Kamuyu wa Kang'ethe, 1994) appeared in the journal *Environmental Ethics*, to be considered a forum for diverse interests and attitudes. Those who have studied non-western religions and philosophies (see, for instance, Hughes, 1983; Chung-ying Cheng, 1986; Deutsch, 1986; Rolston, 1987; Callicott, 1982, 1987; Hargrove, 1989; Ip, 1993; Patterson, 1994; Momaday, 1994; Marshall, 1995; Kwiatkowska-Szatscheider, 1997, Whitt et al., 2001; Callicott and Nelson, 2004 and others) have overlooked the contribution of Africa to

environmental ethics. They either kept quiet or what they said about Africa was rather thin compared with what they said about Native Americans, Asians and Australian Aborigines. Eugene C. Hargrove, for instance, did not say anything about African traditions when he boldly asserted:

> An open-minded comparative study of Eastern environmental attitudes and values will enable Western environmental philosophers better to recognize and criticise their most ingrained and otherwise unconscious assumptions inherited from the long and remarkably homogeneous history of Western thought. (Hargrove, 1989: xx; see also Rolston, 1987: 174)

Similarly, it has been stated that there are two non-western conceptual resources for environmental ethics, namely Asian and American Indian ethical traditions (Callicott and Ames, 1989; Hughes, 1983).

On the other hand, Callicott reviewed some works on the Lele of Congo, the Yoruba of Nigeria, the San, South-central African people often called 'bushmen' and other indigenous African religions, and came up with the conclusion that in Africa indigenous religions tend to be both monotheistic and anthropocentric. By referring to the works of some anthropologists he boldly derived the conclusion:

> 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 ethic, similar to the type of ecologically enlightened utilitarianism, focused on long-range human welfare . . . Or perhaps one could develop a distinctly African stewardship environmental ethic grounded in African monotheism . . . from the core belief of Judaism, Christianity, and Islam in God, the Creator of Heaven and Earth. (Callicott, 1994: 273)

He maintains that '[s]cholarly comment on the environmental implications of Yoruba – and more generally, African – belief is limited and often contradictory' (1994: 164). He points out that according to many African cultural groups, individuals are not detached from social groups. Personal identity is associated with community. By referring to Yoruba religion, Callicott states that the germ of an African environmental ethic may be found in the

> . . . notion of embedded individuality – of individuality as a nexus of communal relationships. Add to the intense sense of social embeddedness an equally vivid sense of embeddedness in the biotic community, and anthropocentric African environmentalism might then be transformed into a non-anthropocentric African environmentalism. (Callicott, 1994: 167)

He further asserts that only the San seem to develop responsible environmental attitudes and values, although there is no evidence that shows that their attitude towards fellow members of the biotic community is similar to that expressed by the North American Ojibwa. The San believe that human and nonhuman beings have similar behaviour. The cosmogony of the San suggests that they 'regarded themselves as one with the other fauna and practiced a quiet policy of live and let live

with their nonhuman neighbours' (Callicott, 1994: 172). However, the San did not develop elaborately articulated paradigms of interspecies relationships and failed to attract the attention of contemporary environmentalists (1994: 173). Although Callicott tries to show that the San have shown a positive relationship with their nonhuman neighbours, in my opinion he has been hasty in his generalizations. He should have studied the worldviews of other cultural groups to support his conclusion. Contrary to Callicott's assumption, for instance, the Oromo of Ethiopia consider not only the well-being of humans but also other nonhuman creatures. I will develop this idea later in the argument. Nevertheless, unlike Hester et al. (2000), I welcome Callicott's attempt to find environmental ethics actually or potentially existing in all the worldviews.

I would like to underline that it is extremely important to understand the fact of a kind of 21st-century racism that is undermining the development of our knowledge of environmental ethics and other fields of inquiry. Any intellectual, no matter how liberal or enlightened, who either explicitly or implicitly suggests that there is nothing to be learned from Africa is terribly ignorant of Africa and is, in my opinion, suffering from this phenomenon. Even today, many writers still do not expect the 'Dark Continent' – as 'traditionally' portrayed by the Enlightenment thinkers and colonial anthropologists – to be the source of environmental ideas that can help the contemporary world solve environmental problems. In current discourse, 'Africa' still appears, even if only in its absence, as some kind of black hole of evil.

This constitutes a serious epistemological problem if we are to even begin to comprehend the nature of the global ecological crisis we are facing. It is as if many researchers have simply failed to do an adequate review of all the available literature in their research area by systematically ignoring the ecological insights of African peasant farmers (Daniel Smith, 2004). Therefore, the research results of an environmental ethicist who overlooks African environmental ethics will necessarily be incomplete.

Some will object that, empirically, Africa has one of the worst environmental records on Earth, and therefore obviously can't be expected to contribute very much to global environmental management. Africans, it will be said, with all solemn objectivity and honesty, clearly are incapable of overcoming their own environmental and development crisis. To many, this seems a plausible assessment of the African environmental record. But the real issue is not so simple. One has to examine how and why Africa has faced an environmental and development crisis before concluding that Africans are environmentally unfriendly.

The critical examination of Oromo worldviews, for instance, suggests that some Oromo groups have developed strong indigenous environmental ethics (for details see Workineh Kelbessa, 1997a and b, 2000, 2001a and b, and 2002). On the one hand like anthropocentrists the Oromo protect their environment for utilitarian reasons. They think that the value of the environment lies in human use. Trees are a source of capital, investment and insurance against hard times. Trees protect soil from erosion and provide the supply of timber, wood and food. Peasant farmers and pastoralists are conscious that, when their environment deteriorates, their life and future generations of humans will be harmed. The Oromo consider the cycles of nature, the coming of the rainy season, the movement of the stars, solar cycles, the movement

and the cries of birds, the nature of entrails, the behaviour of domestic and wild animals and the condition of trees in order to grapple with practical problems of everyday life and future problems. From their practical experience, they know the growing characteristics of each crop and tree, suitable environments, the number of months of rain required, planting and harvesting times, crop care and crop labour requirements (Workineh, 2002: 53).

But the Oromo are not exclusively pragmatists. The bonds between the environment and the rural people are not only material but also spiritual and moral. Normative principles are implicit in the thought and practice of the Oromo people. For them, land is not only a resource for humans' utilitarian ends, but also it has its own inherent value given to it by *Waaqa* (God). For the Oromo *Waaqa* is the guardian of all things, and nobody is free to destroy natural things to satisfy his or her needs. The Oromo believe that the law of society is based on the laws of *Waaqa* as given in nature (Workineh, 2002: 54). Likewise, many Africans believe that land is not something we own. It does not belong to us; rather it belongs to God (Omari, 1990). Humans are not the masters of the universe. Instead they are the friends, the beneficiaries and the users although they are at the centre of the universe (Mbiti, 1996b). Thus the earth, according to some traditional African worldviews, is not a property or commodity to dispose of as we please (David Millar, 1999: 131). In fact, it is important to note that African worldviews are far from homogeneous across the continent.

In this connection, it should be noted that the followers of both modern and traditional religions in Ethiopia believe that one should always do what God wills. It is believed that some trees have a special relationship with God and should not be touched by the axe. Individuals who violate this principle are morally wrong. This shows the traditional link between religion and ethics. According to Peter Singer,

> . . . religion was thought to provide a reason for doing what is right, the reason being that those who are virtuous will be rewarded by an eternity of bliss while the rest roast in hell. (1993: 4)

This sceptical (in terms of rational foundations) interpretation does not establish that for religious believers belief in heaven and hell is the necessary condition for ethical behaviour. Oromo peasant farmers and pastoralists argue that some activities, such as tilling the land, animal husbandry, planting trees, and hunting, have their own moral codes, independent of any religious beliefs. The fundamental aim of people in pursuing these activities is to fulfil their basic needs. In other words, in those cases there is no direct reference to religious sanctions of any sort. In fact, as has been discussed earlier on, whoever unnecessarily exploits the land and its resources or neglects his own children, conflicts with both the laws of God and the Oromo secular moral code of ethics. In addition, this code of ethics is not immutable. The Oromo people critically reflect on and develop their moral rules through discussion and within the framework of their national assemblies so as to maintain their contemporary efficacy under changing conditions, technologies and the modern world.

Some intellectuals, including African intellectuals, think that religion is, objectively, irrelevant to morality. According to Kwasi Wiredu, traditional thinking about morality is preoccupied with human welfare rather than supernatural concerns. He

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contends that sanctions are not important in justifying moral conduct; they can only figure in *psychological* explanation (Wiredu, 1983: 7). The behaviour of individuals is strongly influenced by public opinion, especially the opinion of the kin group, and the opinion of parents, family and lineage heads, while the fact or possibility of religious sanctions are not the real foundation of their sense of virtue. Wiredu argues that the basis of morality in Akan society, Ghana, is rational reflection about human welfare. Goodness is not defined in terms of the will of God. Instead it is defined in terms of human well-being.

> What is morally good is what befits a human being; it is what is decent for man – what brings dignity, respect, contentment, prosperity, joy, to man and his community. And what is morally bad is what brings misery, misfortune, and disgrace. Of course, immoral conduct is held to be hateful to God, the Supreme Being, and even to the lesser gods. (Wiredu, 1980: 6)

Accordingly the rules of good conduct would be in place even if there were no belief in God (Wiredu, 1983: 11). Although the thought that God hates evil can influence conduct, Wiredu says, the moral knowledge of an adult Akan will be developed through his or her early training in the home and his own later reflection (1983: 12). Wiredu further maintains that

> . . . though the Akans believe that God is supremely good, wise, powerful and kind, still their avowed reason for striving after the good is not because it is pleasing to God but rather because it is conducive to human well-being. (Wiredu, 1983: 12)

It should be pointed out that Wiredu's observations and my research among the Oromo indicate that an earlier view within African philosophy that Africans cannot go beyond religious beliefs was mistaken. Therefore, Alexis Kagame's argument that 'no occurrence is regarded as purely secular, or fortuitous, or dependent solely on human agency however skillfully exercised . . . [and therefore] . . . [t]he influence of the supernatural is discerned in every event' is unsound (1996: 88).

Whatever the case, like non-anthropocentric modern environmental ethics, the Oromo worldview regulates the freedom of human beings in their dealings with nature. Thus, the Oromo worldview has fostered a responsible attitude towards nature, plants and animals. The essence of this view is to live in partnership with the natural environment (Workineh, 2002: 54). To some degree, Oromo environmental ethics is close to Leopold's land ethic mentioned above.

The Oromo conception of *saffuu* or *ceeraa fokko* is an interesting example to consider. *Saffuu* is an important concept in the beliefs and practices of the Oromo people. *Saffuu* is a moral concept that serves as the ethical basis for regulating practices in order to ensure a high standard of conduct appropriate to different situations (Workineh, 2002: 54; Workineh, forthcoming). Basically it refers to mutual relationships in the cosmic order. It helps individuals to avoid morally wrong actions. *Saffuu* is, thus, what makes humans different from other animals. While the activities of animals are regulated by instinct, *saffuu* regulates the activities of human beings. *Saffuu* helps individuals to relate natural laws to divine laws and to base their

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activities on these laws. The Oromo believe that *saffuu* involves avoiding embarrassment, bad conversations, lying, stealing, working on holidays, and so forth. *Saffuu* is respecting one another and respecting one's own *Ayyaana* (spirit) and that of others. According to the Oromo, *saffuu* is *ulfina* (respect). We need to show respect to our father, mother, aunt, uncle and our mother Earth. Knowing *saffuu* helps us maintain our culture and revere *Waaqa* (see Tilahun Gamta, 1989: 511).

Saffuu is a mediating category between different things. There is *saffuu* between the mother and the daughter, between the father and the son, between generations, between humans and nature, between God and Earth. Thus, *saffuu* regulates people's activities. The exploitation of natural resources is governed by *saffuu*. One cannot unnecessarily overexploit these resources.

In particular, the Oromo *Gadaa* system has fostered democratic traditions (see Legesse, 1973 and 2000) and contains provisions for the protection of the rights of both human beings and nonhuman species. 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. The Oromo do not merely focus on creatures that have economic importance but they also pay attention to other species as valuable in and of themselves. Sacred groves have symbolic meanings. Similarly, certain wild animals are looked upon as symbols of unity and have religious significance. *Saffuu* regulates the relationship between various animals and human beings. The Oromo moral code does not allow irresponsible and unlimited exploitation of resources and human beings. In this case, then, it can be argued that the Oromo conception of *saffuu* is based on justice. It reflects a deep respect and balance between various things. The Oromo do not simply consider justice, integrity and respect as human virtues applicable to human beings but they extend them to nonhuman species and mother Earth. Accordingly, the Oromo share the view held by most indigenous people (see Rose, 1999: 178) that those who destroy their land and resources destroy themselves, because their survival depends on the life of their land. For the Oromo a sick environment cannot be the living space for creatures. What is interesting is that natural laws are related to human beings and other creatures through *saffuu*. The important ethical principle arising from Oromo wildlife management is that it is morally wrong to totally destroy a species and that humans should live in harmony with other creatures. The Oromo also believe that domestic animals should not be maltreated.

As Lambert Bartels rightly noted, *saffuu*

> . . . implies that all things have a place of their own in the cosmic and social order, and that they should keep this place. Their place is conditioned by the specific *Ayyaana* each of them has received from *Waaqa* . . . *Saffuu* implies both rights and duties. (Bartels, 1983: 170)

Accordingly, one cannot understand the concepts *Ayyaana*, *uuma*, and *saffuu* in isolation. *Ayyaana* is a refraction of *Waaqa*. *Uuma* is the physical thing. *Saffuu* mediates between the *Ayyaana*, which is the ideal, and *uuma,* which is the physical thing or activity that needs to be regulated. The three should be understood together.

Therefore, the main value judgment that can be derived from the concept of

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saffuu is that human beings should live in harmony with all other creatures in the natural environment. The Oromo pay due attention to the moral status of both humans and nonhuman creatures. Violation of *saffuu* will affect the positive relation between individuals, humans and the natural environment.

The concepts *Waaqa*, *Ayyaana*, *uuma* and *saffuu* provide the metaphysical underpinning of an environmental ethic. They underlie environmental attitudes to nature and society. Belief in *Waaqa* requires belief in the value of creatures. The key thing is that the source of all basic Oromo values is *Waaqa,* although there are also secular values that are not directly related to *Waaqa.* The valuing of *Waaqa* underpins belief in the value of trees, animals and so on.

In this context it is important to understand that my studies of the life histories of peasant farmers and pastoralists show that their reverence for the natural environment does not suggest that they do not exploit or use their natural environment as a means; the point is that they do this in a respectful and just way. The fact of the matter is that most of the Oromo people do not abuse nature's generosity by consuming more than what is needed. The Oromo religion may thus indicate the proper relationship between humankind and nature.

The foregoing discussion about Oromo attitudes towards the environment thus suggests that Oromo environmental knowledge can offer a good foundation for modern environmental ethics and science. One may argue that this claim would not stand up well for people who do not share Oromo beliefs. Although this could be a valid criticism, my intention is not to suggest that Oromo environmental ethics can generate universal principles by which worldwide environmental problems will be brought under control. What I am suggesting is that modern environmental ethicists can make use of the wealth of biological and ecological insights and sustainable resources management systems developed by the Oromo people and other cultural groups in order to effectively deal with environmental problems (Workineh, 2002: 55).

In other words, Oromo attitudes towards the environment may offer insights for redirecting the behaviour of technological societies towards a more sustainable path; and in general, global environmental problems can be better tackled through more cross-cultural and interdisciplinary approaches.

Thus, modern environmental ethicists and scientists can enrich their knowledge by making systematic inquiry into environmentally sound practical experiences and religious beliefs of the Oromo and of other cultures. Peasant farmers and pastoralists employ different methods such as progressive adaptive learning, curiosity, hypotheses, observation, and empirical testing, which are germane to conventional, positivist, empirically based scientific approaches for solving environmental problems (Chambers, 1983: 95; Kilahama, 1994: 34). It is interesting to note that:

> . . . [m]any activities undertaken by rural people and scientists are similar: they distinguish, name and classify entities in their environments: they observe, compare and analyse; they experiment; they attempt to predict. (Chambers, 1983: 93)

Thus, traditional ecological knowledge and scientific knowledge have many things in common. Both help the human mind to comprehend reality. Both rely on obser-

vations and generalizations deriving from those observations (Berkes *et al.*, 1995: 282). Of course we should not exaggerate the similarities. Modern environmental science relies on specialized full-time observation, controlled experiments, captive animal studies, and technological devices such as radio collars or electronic monitoring (Nelson, 1993: 209). And, unlike modern science, indigenous knowledge is not intended to discover universal laws. Instead it focuses on the web of relationships between humans, animals, plants, natural forces, spirits and land forms in a particular locality (Battiste and Henderson, 2000: 44). In any case, as Ashis Nandy (1987) argues persuasively, today the choice is no longer between traditionalism and modernity in their pure forms but an enlightened middle way between the two.

The foregoing discussion suggests that modern environmental scientists and ethicists can derive the following lessons from traditional versions of the Oromo environmental ethics:

- the concern to preserve all species and the belief that domestic animals ought to be treated without cruelty;
- an ethic of preservation and production based on the facts that without production and transformation of nature human life is unthinkable, and that a healthy green environment is a *sine qua non* for the survival of all living things;
- the importance of a positive rather than purely exploitative relationship with the environment; and
- an appreciation of the earth as the mother of life.

Moreover, modern environmental ethicists and theorists can learn from Oromo peasant farmers, pastoralists and other local communities about the nature and specific features of the local soil, flora, fauna and climates. They can increase their understanding of diseases, other threats to health, and pharmacological remedies. And they can gain new practical insights into unique beekeeping, agricultural and fishing practices (Workineh, 2002: 56). Local knowledge may facilitate in a few days soil surveys and mapping that would otherwise take months (Howes, 1980). In many cases, environmental theorists who grew up in the cities are simply not aware of the wealth of knowledge that can be found within rural communities. They are unaware of what is required in hunting, forest management, biodiversity conservation and other activities. It seems some 'experts' do not really have a full grasp of the basics regarding agriculture, forest management, biodiversity conservation, hunting, etc.

The above emphasis on non-western sources of environmental ethics should not preclude important western sources. Western writers have developed various conceptual issues that have played a central role in subsequent discussions of environmental and ecological questions. John Passmore has pointed out that the existence of various attitudes towards the natural world in the West is important, 'because it means that there are "seeds" in the Western tradition which the reformer can hope to bring into full flower' (Passmore, 1974: 40).

Callicott for his part envisioned a single, univocal, international environmental ethic and the revival of a multiplicity of traditional, cultural environmental ethics that resonate with the former and that help to articulate it for the 21st century. He writes:

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> Thus we may have one worldview and one associated environmental ethic corresponding to the contemporary reality that we inhabit one planet and that we are one species, and that our deepening environmental crisis is common and global. And we may also have a plurality of revived and renewed traditional worldviews and associated environmental ethics corresponding to the historical reality that we are many people inhabiting many diverse bioregions apprehended through many and diverse cultural lenses. But this one and these many are not at odds. Each of the many worldviews and associated ethics may crystallize the international ecological environmental ethic in the vernacular of a particular and local cultural tradition. Let us by all means think globally and act locally. But let us also think locally as well as globally and try to tune over global and local thinking as several notes of a single and common chord. (Callicott, 1995: 2)

In general, various environmental ethicists have shown that the social and economic activities of traditional societies correspond to many key goals of sustainability. I have also shown above that there is a possibility to derive some positive lessons from the environmental knowledge of African peasant farmers and pastoralists. Environmental ethicists can also learn a respect for the resources that we use and for the earth at large from Native Americans, Australian Aborigines and Asians. For the most part, those communities or cultural groups that have successfully survived over a number of millennia in their environments in fact develop closely parallel adaptations to those environments. One thing that indigenous societies have in common is very strong metaphorical systems which reflect the human relationship with the rest of the world. Non-western knowledge is not always the source of ecological wisdom. However, it would be to our benefit to critically study indigenous environmental ethics rather than totally ignoring it.

Another important question is: can peasant farmers and pastoralists learn from modern environmental theorists? And, the answer is yes, in many ways. Environmental theorists may alert peasant farmers and pastoralists to the long-range effects of environmental degradation that are beyond the purview of local people and otherwise unavailable. There are communities that have been removed from their land for a long period of time with terrible environmental results. They have not been able to manage their lands in the traditional ways. Environmental ethics and science can demonstrate to the public in books and journals that the loss of land rights and the loss of access to natural resources cause more problems. Modern environmental knowledge about global warming, global climate and ozone layer depletion will provide peasant farmers and pastoralists with an opportunity to look at their own local concerns and issues within the context of a greater global perspective.

But do peasant farmers and pastoralists have access to modern environmental ethics or environmental science, particularly in developing countries? In practice, no! It seems that modern environmental ethicists in the West have produced their works for the consumption of philosophers and other privileged groups in industrialized countries. According to Bryan G. Norton:

> The burgeoning literature of environmental ethics is read mainly by other philosophers, and occasionally by environmental policy analysts, but seldom by environmental activists and managers. (Norton, 1986: 202)

Norton has further said, in my view rightly, that the influence of environmental ethicists on the actual environmental decision-making is insignificant, because they use the traditional vocabularies of professional philosophers, which may not be understood by western environmental practitioners, let alone by African peasant farmers and pastoralists. The modern environmental ethicist does not talk to the common people. He or she talks to other environmental ethicists. So long as environmental ethics is retained at this level, modern environmental ethics has nothing to offer to peasant farmers and pastoralists. In theory one would hope that it should spread as widely as possible. It would be very useful for peasant farmers and pastoralists if the information could be disseminated in some way. But it is very difficult to tell how this could be achieved.

Environmental ethicists in Africa and in other parts of the world should try to achieve this goal by enabling peasant farmers, pastoralists and other indigenous people in the world to get the message of their works. First of all, it would be useful to create awareness of what peasant farmers and pastoralists already know. They need to be informed of the fact that their environmental knowledge has a tremendous value for the natural environment so that they can be further motivated to maintain it even under harsh conditions. They should be reminded that if they improve their knowledge, it will be even better. But one has to know how to communicate with them at the grass roots level. Environmental ethicists and theorists will have to learn to talk the language of the peasant farmers and pastoralists. Environmental theory has to be presented in a language that is easily digested by peasant farmers and indigenous people. Environmental ethicists need to promote ethical debate in a language that peasant farmers and pastoralists can understand.

This does not mean that environmental ethicists should forgo their modern expertise and conceptual framework and stop producing other works that have global dimensions. Environmental ethicists can contribute much to the protection of the environment if they relate abstract understanding to practical problems in society. Peasant farmers and pastoralists should also be encouraged to improve their knowledge, their language and learning skills so as to benefit from modern theories and technologies. It has been shown that in the past peasant farmers and pastoralists have benefited from modern technology and inventions, such as films, video and communication technologies. Some peasant farmers have already started to use the Internet with the help of non-governmental organizations. However, in reality there are many barriers to such developmental exchanges and advances, such as the fact that the Internet is based on a language that many peasant farmers hardly understand. Furthermore, most peasant farmers in developing countries do not even have adequate access to a telephone service. It is true that in relatively more developed societies there are more opportunities for such exchanges, but in any society some degree of exchange is possible. Accordingly, environmental ethicists should make every effort to work with peasant farmers, pastoralists and non-philosophers.

Moreover, peasant farmers and pastoralists by themselves may not meet the growing demands of the growing population if they restrict themselves to local knowledge. Local people still lack basics such as schools, improved medical care, transportation, radio and electricity. Modern science and technology are required to increase productivity and to satisfy the growing demands of the population. Peasant

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farmers and pastoralists, thus, should have access to the material benefits that come from economic changes and development.

The foregoing discussion shows that the dichotomy between indigenous and modern environmental knowledge is not natural, and raises the question of how we can effectively bring them together in productive and mutually reinforcing dialogue.

It might be objected that in practice the integration of indigenous and modern environmental knowledge does not seem to work because of various factors. For example, there is the simple fact that many modern environmental ethicists do not bother about peasant farmers and other indigenous people in the world. They are more interested in academic knowledge and theoretical debate than in practical problems at the grass roots level. Ironically, this suggests an ethical weakness on the part of many ethicists.

Moreover, one may argue that the West and the non-western traditions could not benefit from one another for the reason that the driving forces behind their distinct worldviews are fundamentally and irreconcilably different. What sustains the Oromo environmental knowledge and ethics is completely different from the motive that drives the western order. The principle in the West is based in self-interest and exploitation. There are many institutional and attitudinal barriers that bar western ethicists from learning from non-western thinkers and cultural practices.

Another consideration that can be presented against my view that these two approaches to environmental ethics *morally* ought to be and *practically* can be brought together in a productive working relationship is that 'Third World' countries themselves have never taken any serious measures to respect indigenous knowledge. There have been a lot of perhaps well-intentioned but effectively empty promises with very little if anything actually being done. Even worse, as things stand today, intergenerational knowledge is weak even at the grass roots level. The younger generation is not interested in the knowledge of elders. In the meantime elders are taking their knowledge to their graves with them. Thus, one might conclude that because of this lack of commitment and will, what I am suggesting might sound nice on paper but ignores the human realities.

Furthermore, in relation to changing environmentally destructive behaviour through a rehabilitated and integrated indigenous and modern scientific environmental ethics on the global scale, it is difficult to see how this could be possible given the nature of globalization in its current form, with its total emphasis on markets, competitive production, increasing consumption and wanton materialism.

Although there is a good deal of validity to the problems outlined above, I do not believe this is fatal to my overall position, or that all such efforts are ultimately in vain. It is true that what we are currently doing in environmental ethics is failing to curb behaviours that are destructive to the environment, and human beings too. A wealth of wonderful environmental conferences and conventions have not enabled us to control environmental degradation.

One major obstacle to global environmental health that must be addressed is the increasing power of transnational corporations (TNCs). In other papers I have shown how transnational business interests have established precedence over the interests of people (Workineh, 2001a, 2004). TNCs have little or no concern for indigenous cultures or interests.

On the other hand, there are encouraging signs that many modern scientists, particularly in the medical and agricultural sciences, are coming back to indigenous knowledge to enrich themselves. They understand that science and indigenous knowledge are not diametrically opposed. For instance, scientists are using the *neem* tree as an insecticide in India. Some scientists have developed conservation strategies on the basis of indigenous environmental science (see Melaku Worede and Hailu Mekbib, 1993). Scientists are thus beginning to acknowledge the positive contribution of indigenous environmental ethics to the solution of environmental problems. I believe that further dialogue between indigenous and modern environmental ethics will have positive impact on the natural environment and its inhabitants.

Conclusion

What has been discussed in this article suggests that there is a need, an extremely urgent and ubiquitous need, for the revival of a multiplicity of indigenous and cultural environmental ethics in contemporary societies. There is a further need on the part of those who have power to produce knowledge, and those scientists and environmental philosophers who can influence the former, to change the negative attitudes towards indigenous environmental knowledge and ethics.

The worldviews of the indigenous traditions of various countries in the world contain many environmentally friendly and profound insights into the nature of life and our mother Earth. The foregoing discussion further suggests that indigenous environmental ethics can be integrated into modern environmental ethics. There are many things that the rural people know and environmental ethicists do not, and vice versa. In some cases peasant farmers and pastoralists who live on and by the land are far more resourceful and innovative than modern technicians in the area of environmental control and soil conservation. Likewise, modern environmental ethics and related theories can address a vast array of problems that indigenous knowledge cannot. Thus modern environmental scientists and ethicists and the rural people can learn from one another.

Mutual understanding between the rural people, environmental ethicists and scientists can generate many common principles and areas of cooperation. Given this potential to contribute to the well-being of our planet and human life, as relatively privileged academics and intellectuals, modern environmental ethicists have an ethical duty to make sure that their work does not remain purely academic. The article thus suggests that it is important to make every effort to promote and conduct further international, inter-religious, and inter-cultural dialogue and cooperation in environmental ethics, especially between modern environmental ethicists and indigenous ethicists, in order to foster mutually enhancing relations between humans and the earth.

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