Articulating Moral Bases for Regional Responses to Deforestation and Climate Change: Africa

Amelia Chizwala Peterson
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ABSTRACT

Deforestation and desertification, archenemies of efforts to maintain forests as sinks for greenhouse gas emissions, are marching on unabated in Africa, where 90 percent of forests were lost in West Africa over the last century alone. Wangari Maathai, founder of the Green Belt Movement, whose work to restore some of Kenya’s decimated forests predates the connections made by the climate science community between deforestation and climate change, wrote:

Today we are faced with a challenge that calls for a shift in our thinking, so that humanity stops threatening its life-support system. We are called to assist the Earth to heal her wounds and in the process heal our own . . . This will happen if we see the need to revive our sense of belonging to a larger family of life. . . .

Maathai’s call for an African response, however, was qualified by the principle of “common but differentiated responsibility.” She bemoaned the fact that Africa which had “hardly contributed to climate change”—yet would suffer the gravest impacts of climate change, and called for African leaders

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1 Wangari Maathai, We Are Called to Help the Earth to Heal, in MORAL GROUND: ETHICAL ACTION FOR A PLANET IN PERIL 271, 272 (Kathleen Dean Moore & Michael P. Nelson eds., Trinity University Press 2010).


3 Maathai, supra note 1, at 273.
to engage in global decision-making on how to address the crisis. Yet the last two decades of sluggish climate negotiations demonstrate that global legalism places an unwarranted amount of faith on global solutions to global problems. We live in a world where the bulk of climate policy is being made far away from the UN process—at regional, national, provincial, and local levels of governance. It is these localized responses, in the aggregate, that have the potential to significantly impact global climate change. But in the absence of laws, these local or regional responses are driven by some moral code that justifies valuing the environment. This Article begins a process for articulating a regional environmental ethic to catapult, strengthen, and give teeth to Africa’s own response to its role in the climate crisis: an ethic from within on which to base stronger policies against deforestation, land degradation, and desertification. Thinking through the moral grounds for ethical action holds the key to the fundamental shift necessary to address the most dominant of Africa’s environmental problems, and galvanize these bottom-up responses to the global crisis of our time.

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[A] piece is largely missing from the public discourse about climate change, namely an affirmation of our moral responsibilities in the world that the scientists describe. No amount of factual information will tell us what we ought to do. For that, we need moral convictions—ideas about what it is to act rightly in the world, what it is to be good or just, and the determination to do what is right.  

Some environmental ethic, resonant with Africa’s age-old intellectual chords and rhythms, is badly needed to help stem this tide of biocide.  

INTRODUCTION

For decades now, experts have studied and documented the severe environmental and land degradation across Africa. The external observers

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5 Kathleen Dean Moore & Michael P. Nelson, Toward a Global Consensus for Ethical Action, in Moral Ground: Ethical Action for a Planet in Peril xvii (Kathleen Dean Moore & Michael P. Nelson eds., Trinity University Press 2010).
7 See generally A. Aubrèville, Climats, Forêts, et Désertification de l’Afrique Tropicale (Société des Editions Géographiques, Maritimes et Coloniales 1949) (evaluating rapid degradation of land through erosion and other processes resulting from mismanagement by resource-poor farmers in Africa); P.F. Reich et al., Land Resource Stresses and Desertification in Africa, in Response to Land Degradation 106, 112 (E. Michael Bridges et al. eds., 2001) (assessing the vulnerability of Africa’s land resource base and concluding that “desertification is rampant in much of the continent and will permanently destroy the agricultural production potential.”); Larry L. Tieszen et al., Sequestration of Carbon in Soil Organic Matter in Senegal: An Overview, 59 J. of Arid Env’ts 409 (2004) (observing that land degradation and depletion in the Sahel and in Senegal, “likely result[ed] from loss of effective natural resources due to over-cultivation, overgrazing, extensive fuel-wood gathering, and other ill-suited land management practices as well as unfavorable economic and agricultural policies”); Press Release, Secretary-General, Livelihoods of Over One Billion People at Risk from Desertification, Secretary-General Says in Message on International Day, U.N. Press Release SG/SM/9329 OBV/424 (June 17, 2004) (committing to channeling much-needed resources to the problem of desertification in African through the Global Environmental Facility); United Nations Convention to Combat Desertification (UNCCD) 1954 U.N.T.S. 3, Addressing Desertification, Land Degradation and Drought in Africa, http://www.unccd.int/en/regional-access/Africa/Pages/alltext.aspx (last visited Nov. 5, 2013) (recognizing that desertification has its greatest impact in Africa; two-thirds of the continent is desert or drylands; and that there are extensive agricultural drylands, almost three quarters of which are already degraded to some degree and elevating the Regional Implementation Annex of the Convention for Africa
of the deteriorating African landscape continue to watch in alarm, sometimes heralding a concerted global response. However, the nature of the problem has now been ratcheted up by mounting and undisputed scientific evidence demonstrating a clear causal link between tropical deforestation and global climate change. The African environmental “crisis” that was once framed solely in the context of the direct effects of desertification, deforestation, and land degradation on African ecosystems, economies, and societies, is now in fact unhinged from the location of rapidly advancing desertification and deforestation to a much broader, worldwide crisis. In short, slowing down the overall loss of tropical forests and the increase in regions classified as deserts has real implications for enhancing the currently diminishing capacity of African forests to act as sinks for carbon dioxide and greenhouse gas emissions.


Africa’s diminishing contribution to its capacity as the world’s “lungs” is not the worst in the world. Latin American and Asian countries have some of the world’s highest deforestation rates. See R. A. Houghton, Tropical Deforestation As a Source of Greenhouse Gas Emissions, in Tropical Deforestation and Climate Change 13–15 (Paulo Moutinho & Stephan Schwartzman eds., 2005) (citing a Food & Agricultural Organization report from 2001 which lists the following countries as having the world’s highest rates of tropical deforestation (in 106 ha/yr) during the 1990s: Brazil (2.317), India (1.897), Indonesia (1.687), Sudan (1.003), Zambia (0.854), Mexico (0.646), the Democratic Republic of the Congo (0.538), and Myanmar (0.576)). Houghton’s article provides an in-depth description of the climate change and tropical deforestation nexus based on scientific evidence. However, with the exception of Kenya, the response of African governments has been the least effective mechanism in slowing down or stopping deforestation. See infra note 27 and accompanying text (discussing the uniquely grassroots Green Belt Movement in Kenya which has resulted in wide-scale revegetation and reforestation of some of that nation’s previously decimated forests). Uganda also grew in its volume of forest projects, “climbing up in the ranks of country locations to become the world’s 4th largest forest carbon offset supply country in 2011.” Id. at 55. See Molly Peters-Stanley, Katherine Hamilton, & Daphne Yin, Leveraging the Landscape: State of the Forest Carbon Markets 2012 iv, 55 (2012) (showing a spike in
It is in this new context that renewing efforts to dig deep into an environmental moral code for man’s relationship to nature becomes much more crucial. The Western environmental movement is identified in history as a new way of thinking that emerged in literature, science, and public discourse; a movement that brought awareness to the environmentally destructive path on which every country has trudged along in the name of industrialization and modernization. Environmental philosophy provided the justifications and the rationale behind the Western environmental awakening. This article asks and attempts to answer these questions with respect to Africa: to what extent have Western environmental ethics been directly imported into the African context? What is the value of the philosophy that comes out of Africa itself? What, if any, are the dominant African environmental ethics? Why have these philosophies failed to mobilize the African political machinery towards the protection of the African forest carbon offset projects in Africa between 2010 and 2011, but also showing that Africa transacted in 4.7 MTCO2e in 2011, compared to 7.7 MTCO2e in Latin America. Transactions specifically in REDD projects and programs were less than 2 MTCO2e in 2011, compared to about 4 MTCO2e in Latin America).


11 Joseph R. DesJardins, *Environmental Ethics: An Introduction to Environmental Philosophy* 7 (2012) (discussing the various schools of thought in Western environmental philosophy, and the particular emphasis of each philosophy on a previously unconsidered factor argued to be critical to the ethical link between humans and the environment).

12 The discussion in this Article does not include North Africa, but focuses on West, East and sub-Saharan Africa. For an overview of Islamic environmental ethics, which encompasses the dominant beliefs of the Middle East and North Africa (“MENA”) region, see generally Mawil Y. Izz Deen (Samarrai), *Islamic Environmental Ethics, Law & Society*, in *Ethics of Environment and Development: Global Challenge, International Response* (Ronald Engel & Joan Gibb Engel eds., 1990).
ecosystem? Is such an ethic sufficient to begin to address deforestation—one of Africa’s (and the world’s) most critical environmental issues, given its larger ramifications on the world’s climate?

J. Baird Callicott, an American philosopher, observed that “finding some environmental ethic (or ethics) consonant with African experience . . . [was] a dire necessity.”13 Callicott’s concern about Africa begins with an observation that the continent has some unique and endemic environmental problems. But equally unique is the set of moral and cultural experiences that shape and determine the relationship between man and nature. Perhaps the ethic with the potential to rescue Africa’s environment lies in the richness of African cultures.14 The environmental ethics of Africa would therefore not come from Western philosophy. Neither would their root be extraterritorial. African environmental ethics should be embodied in the traditions of the African people, an ethic from within.

The traditional barrier that has stood in the way of finding and defining Afro-ethics on the environment is the historically thin record of African philosophy in general. The Western education of many African philosophers invites a self-criticism that anticipates the criticism of others. For example, Cameroon’s H. Odera Oruka, despite being one of Africa’s most prominent philosophers, wrote:

My inspiration in delving into sage philosophy [African moral principles extracted from the orations of village elders] was an attempt to try to establish whether or not Africans were capable of philosophy. “Am I, Odera Oruka, capable of philosophy?” They say “Yes, but it is because you have been to European universities.” So, however great a contribution I could have made in, say, logic, metaphysics, or ethics, they would say, “Yes, fine, but this is European philosophy.” And they still would still wonder whether there was anything that Africans could contribute to philosophy that is authentically African.15

By refuting the notion that Africa “looms as a big blank spot on the world map of indigenous environmental ethics,”16 this Article surveys the African

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13 See Callicott, supra note 6, at 158.
14 Id. at 159.
16 See Callicott, supra note 6, at 158 (implicitly rejecting the conclusion that seems to naturally follow from the collective writings of Geoffrey Parrinder (British student of African religions), Noel Q. King, J.S. Mbiti (an African philosopher), Mary Douglas (a
landscape, searching the branch of philosophy which articulates the relationships between Africans and their natural environment. This Article searches for both bottom-up sources of evidence—an excavation at the roots exploring the primary religions, culture, and development of the economics of Africa—and top-down sources of evidence: African environmental politics, and what they tell us about the outer edges of a uniquely African, progressive environmental ethic.

Part I begins with a discussion of the current environmental issues impacting Africa’s environment and the globe, particularly the impacts of deforestation and desertification on global climate change. It outlines the scientific evidence linking tropical deforestation to climate change, and the equally far-reaching impacts of desertification. Here, the Article locates the deforestation trends in Africa in the context of the competing agendas of the developing economies, a common enemy of biological diversity across the developing world. Against this backdrop, Part II describes the critical role of environmental philosophy in shaping both national, regional, legal, and policy responses to unsustainable imbalances in the relationship between humans and their natural environment. Additionally, this section provides an overview of Western environmental ethics as applied to Europe and the United States. By showing how Western environmental philosophies are predominantly nonuniversal, the foundation is laid for the importance of articulating an African environmental ethic that incorporates both religion and culture—the organic markers of African morality. Part III lays out the bare bones of the few environmental philosophies emerging out of Africa and juxtaposes them against the actual behavior of African states. The stark contrast between what ought to be and what is in African environmental protection leads to this conclusion: even though the power of religion and culture in Africa suggests a high-level environmental ethic that is both homegrown and uniquely African, the practical effect of the African economics forces a traditionally Western-style anthropocentrism that cannot easily be substituted by more enlightened philosophies. Yet it must. Climate change impacts, globally and within Africa itself, are now calling for concerted efforts to reduce deforestation, a primary focus of African biocide. The enlightened philosophies we seek already exist in the roots of African religion and culture. They are not foreign—indeed, they form the fragments of an ethic from within.

British anthropologist) and the latter’s study of the Lele village dwellers, that Africans are unequivocally anthropocentric).
I. AF RICA IN THE G LO BAL ENVIRONMENTAL COMMONS

While all life on our planet is in some way affected by the adverse impacts of environmental degradation, Africans and their environment experience these impacts in a particularly direct way. The relationship between the African people and their environment is much like the two sides of a coin—inevitably connected yet in constant opposition. The people live in close dependence on the service-value of natural resources. On the other side of the coin is the environment: the land, climate, and water resources which are so intimately connected in a physical sense to the African people.

This interdependence manifests itself in a love-hate relationship. Love, because the land and the people are connected in a historical song-dance, meshed in the traditions that make the people “African” and identify the land as African. Hate, because the intimacy of the relationship and connectedness of the African people, their economies, politics, and religion, to their natural environment brings to the fore the inadequacies of the dominant partner, embroiling the couple in moral wars labeled “slash-and-burn,” “soil erosion,” “famine,” and “deforestation.”

A. Deforestation and Desertification—Fuel for Climate Crisis

Four types of environmental degradation are among the worst of Africa’s environmental problems: desertification, deforestation, pollution, and loss of biodiversity. Desertification, the transformation of productive land to wasteland, is estimated at 36,000 square kilometers each year. The factors creating conditions conducive to this rapid desertification are: “localized population density pressure, the migration of many able rural workers to the cities, over-cultivation, overgrazing,” and inadequate land/forestry management.

17 See infra note 57 and accompanying text (describing the critical dependence of African economies on land-based resource exports).
18 ROBERT P A EHLKE, CONSERVATION AND ENVIRONMENTALISM: AN ENCYCLOPEDIA 9 (1995) (claiming that population growth and increasing urbanization are the primary factors that exacerbate each of these environmental problems. For example, rapid urbanization has placed enormous pressure on a failing and inadequate infrastructure, resulting in poor sanitation systems and water pollution).
19 Id.
20 Id.
21 Id.
22 Id.
Deforestation in Africa is extreme and primarily driven by economic pressure to move onto additional farm land to sustain cash crop production. It is estimated that in the 1980s alone, Africa lost 7% of its forests. This trend is nothing new; a recent study suggests that as far back as the Iron Age, human activity abruptly shifted central African rainforest trees to savannas. The demise of Africa’s forests is both externally and internally driven. The rise in wealth in parts of the world like China and India and the continued need for food security in Western countries are working together to raise commodity prices and increase pressure on agricultural lands across the developing world, which tends to be natural-resource wealthy, especially in land resources. Internally, the direct use of forests for timber and for domestic energy usages account for a significant loss of Africa’s forests. There have been remarkable efforts at reforestation, but reforestation is only replacing about 10% of the annual loss.

Pollution of land, water, and air in Africa can be blamed on a whole host of causes, but toxic dumping by Western multinational corporations, especially due to operations in African oil fields, is most notable. Finally, the disappearance of wildlife and loss of biodiversity are unprecedented in Africa. Population pressures, poaching, and the tradition of separating wildlife from human populations have resulted in the loss of

23 See id. at 9–10 (stating that, as of 1995, Cote d’Ivoire had lost 78% of its forests, Ethiopia 86%, Gambia 91%, Liberia 87%, and Uganda 79%).
24 PAEHLKE, supra note 18, at 10.
26 PAEHLKE, supra note 18, at 9 (stating that “wood provides up to 90% of Africa’s energy requirements.”).
27 Id. at 10. Kenya’s Green Belt Movement, started by Nobel Prize winner Wangari Maathai is perhaps the most popular grassroots effort to push back against the raging fire of deforestation. See generally THE GREEN BELT MOVEMENT, http://www.greenbeltmovement.org (last visited Nov. 5, 2013).
28 Note that the Bamako Convention of 1991 attempts to protect the African environment from the dumping of toxic wastes. See Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, not yet in force, available at http://www.au.int/en/sites/default/files/Convention_En_Bamako_Ban_Import_into_Africa_and_Transboundary_Movement_hazardouswastes_Bamako_30January1991.pdf. However, the convention has been severely limited in its effectiveness. See, e.g., ADEBOLO OGUINLADE, CAN THE BAMAKO CONVENTION ADEQUATELY SAFEGUARD AFRICA’S ENVIRONMENT IN THE CONTEXT OF TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTES?, UNIV. OF DUNDEE CTR. FOR ENERGY, PETROLEUM & MINING LAW & POLICY 17–18 (2011) (pointing to Africa’s economic realities (“poverty or poison?”), the lack of political will for implementation of the convention’s provisions against other African countries, the inadequacy of international cooperation, and a deficit of waste management technologies).
vast amounts of Africa’s wildlife.\textsuperscript{29} A stark picture is presented in the case of Kenya, where the elephant population dropped from 165,000 to 16,000 between 1970 and 1990.\textsuperscript{30}

Africa’s largest contributions to the global environmental crisis are deforestation and desertification, because regardless of where in the world they occur, they both contribute significantly to global warming. When forests are cleared, carbon stored above and below ground in leaves, branches, stems, and roots is released to the atmosphere.\textsuperscript{31} As a consequence, forest clearing, especially in the tropics, is a major source of CO$_2$ release to the atmosphere.\textsuperscript{32} “One estimate shows that land use change, primarily deforestation, releases about 5.9 GtCO$_2$ (gigatons or billion metric tons of CO$_2$) annually, about 17% of all annual anthropogenic GHG emissions.”\textsuperscript{33}

B. Nature v. the Development Agenda

The Africa Summit Report placed the lion’s share of the blame for Africa’s environmental issues on new technologies and population growth.\textsuperscript{34} The report’s conclusion illuminates the tension between continued development and environmental integrity. In Africa, technology has generated an increase in solid mineral mining and oil exploration, an increase in the number of plants and factories, and an overall upsurge in the application of manufacturing tools.\textsuperscript{35} Irresponsible industrialization, characterized by explosions, chemical, and radioactive contamination, and other technological incidents, increase the direct harms inflicted on the environment

\textsuperscript{29}See PAEHLIKE, supra note 18, at 10.
\textsuperscript{30}Id.
\textsuperscript{31}See A. Baccini et al., \textit{Estimated Carbon Dioxide Emissions from Tropical Deforestation Improved by Carbon-Density Maps}, 2 NATURE CLIMATE CHANGE 182 (2012) (arguing that between 6 and 17 percent of annual greenhouse gas emissions come from tropical deforestation, and attributing the wide variation in the estimate to the inadequacy of remote sensing to measure carbon stored in forests). The exact amount of CO$_2$ emissions from deforestation has a large degree of uncertainty, with estimates ranging from 1.8 to 9.9 GtCO$_2$/year for the 1990s.
\textsuperscript{32}Id.
\textsuperscript{35}Id. at 1–2.
by Africa’s technological advancement trajectory. The results include reduced quality and richness of terrestrial, freshwater, and marine environments, as well as air and land pollution.

Additionally, rapid population growth and its companion problems have placed the African natural environment in jeopardy. Globalization also places greater demands on land to produce cash crops for export, which facilitates economic growth, but blazes the trail for environmental degradation. With an increasing global population, natural disasters are resulting in damage, loss of life, and displacement of populations. Human-induced changes to the environment have reduced its capacity to absorb the impacts of change and to deliver the goods and services needed to satisfy human needs.

African economics suggest an unconsciously anthropocentric view of man’s relationship to the natural environment. Segun Ogungbemi, an African philosopher, observed that modern day Africa has benefitted from Western civilization and industrialization even as the West has in turn benefitted from the exploitation of Africa. However, he posited that, because of the desire to develop like Europe and the United States, African governments (often in conjunction with international corporations) have engaged in mass destruction of ecosystems. The drive to develop has led to wholesale abandonment of traditional practices and values of forest-land management, as if development and modernization were incompatible with

36 Id. at 1.
37 Id. at 1–2.
38 See ACTION PLAN OF THE ENVIRONMENT INITIATIVE, NEW PARTNERSHIP FOR AFRICA’S DEVELOPMENT (NEPAD) 20 (Oct. 2003) [hereinafter NEPAD REPORT], available at http://www.unep.org/roa/Amcen/docs/publications/ActionNepad.pdf (The NEPAD REPORT lists urbanization, energy consumption, overgrazing, over-cultivation of lands, and industrial advancements as companion problems to the population growth phenomena. According to the report, the population growth rate in Africa approximates 2.2 percent annually, with sub-Saharan Africa having one of the world’s fastest growing populations. Approximately 50 percent of land degradation in Africa is caused by overgrazing and 24 percent by activities related to crop production, 14 percent by vegetation removal and another 13 percent by overexploitation of the land.). See also Thalif Deen, AFRICA PLATFORM FOR DEVELOPMENT EFFECTIVENESS, Africa Faces Explosive Population Growth (June 2011), http://www.ipsnews.net/2011/06/africa-faces-explosive-population-growth/ (placing the population growth rate for the continent at 2.3 percent per annum) (last visited Nov. 5, 2013).
39 Id. at 20.
40 Id. at 16, 20.
41 Id. at 16.
43 Id. at 322.
conservation of the forests.44 But the economic trajectory of Africa is not evidence of wanton disregard of environmental stewardship. With populations burgeoning, African governments are faced with the insurmountable burden of feeding the millions on disproportionately small budgets. As societies industrialize and achieve middle-class lifestyles, they tend to use more resources.45 This economic reality has naturally forced a shift from subsistence farming to mechanization, often accompanied by the loss of traditional land management practices.46

However, viewing African economic development with rose lenses terminates the analysis prematurely. Although population growth has forced the switch from traditional subsistence to the use of technology, African consumerism has contributed to a Western-like trajectory of development. Ogungbemi puts it more bluntly: “[M]odern Africa does not want to eat and drink only what is produced locally; it has been infected with a desire for the Western lifestyle, and to cope with this modern lifestyle it has to import goods from industrialized nations.”47 This increase in imports forces an increase in the domestic production of Africa’s export goods (coffee, tea, cocoa, rubber, oil, and mineral ore),48 which can only be accomplished efficiently through technological advancement.

The development economics rationale of the environmental situation in Africa is formalized by its inclusion in the most important treaty in the climate change context, the United Nations Framework Convention for Climate Change (“UNFCCC”).49 The convention recognizes the need for African governments to develop their national economies by affirming that developing countries have a right to development, defined by the UNFCCC in Article 3(4) as a right to “sustainable development” requiring each party to take into account that economic development is essential for adopting measures to address climate change.50 Further, Article 3(12) states that the parties to the UNFCCC should cooperate to achieve “sustainable [economic] development in all countries.”51 A major concern for developing countries

45 Id. at 376.
46 See id. at 332–33 (pointing out that rapid population growth and a need to feed the people necessitate some improvements in the traditional subsistence farming).
47 Id.
48 Ogungbemi, supra note 42, at 332.
50 Id. at art. 3(4).
51 Id. at art. 3(12).
was that efforts to address climate change may overlook the fact that limiting the carbon emissions of developing countries would impede efforts to develop their economies. African governments cannot perceive an economic development trajectory that does not involve fossil-fuel-driven technology and squarely bill the cost of development by alternative technologies onto the West. All these signs point to a develop-or-die attitude, shrouded in a deeply anthropocentric man-nature relationship.

C. Baggage and the Perfect Storm

In addition to the dominance of economic development on the African agenda, at least four other factors contribute to environmental degradation particularly in sub-Saharan Africa: (1) the continuing legacy of the subjugation of environmental interests during the colonial period; (2) the conundrum of predominately agrarian economies (often based on a single-commodity export), locking people into a dependence on arable land and rain patterns; (3) abject poverty; and (4) totalitarian political structures that limit the African’s access to democratic mechanisms to protect the environment.

Africa’s current environmental problems cannot be unhinged from their historical context of colonization. According to the *Oxford Encyclopedia of African Thought*, mining and cash crop farming were the two most significant environmental changes Africa experienced under colonization. Europeans restructured the way Africans traditionally farmed or otherwise used the land. Further, Africans were forced to overuse land as Europeans restricted them to areas with poor soil in the name of conservation and sport hunting. Colonialism also gave private companies a foothold in Africa, allowing for the growth of multinational companies who exploited natural resources such as diamonds, oil, forests, animals, gold, and monocultural cash crops. Most detrimental to the success of sustainability

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53 *The Oxford Encyclopedia of African Thought* 339 (F. Abiola Irele & Biodun Jeyifo eds., 2010) (stating that colonial governments pushed farmers into cotton, tea, cocoa, palm oil, and coffee production to the detriment of the soil).


55 *See id.* (describing how “European sport hunters established game preserves without any regard to the subsistence requirements of African [farmers].” The result was the over-use of under productive types of soils).

56 *Id.*
principles is how the legacy of colonialism led to over dependence on single-drivers of government funds without any wide-scale diversification of the economies. Today, African economies largely depend on single-commodity exports, all of them dependent on rain-fed agriculture and ranging from tobacco to coffee. Consequently, land is the backbone of sub-Saharan economies. “Agriculture contributes about 40 percent of the gross domestic product (GDP) and provides livelihoods to about 60 percent of the population.”

Sub-Saharan Africa is acutely vulnerable to threats to its agricultural existence (the conundrum of predominantly agrarian economies locked into dependence on the land). Arable land is not an abundant resource: “only 21 percent [of Africa’s land] is suitable for cultivation.” In fact, “Africa contains the world’s largest expanse of drylands, covering roughly two billion hectares of the continent, or 65 percent of Africa’s total surface area.” Additionally, millions of arable hectares have been lost to soil degradation. The combination of economies highly dependent on single-commodity exports and the scarcity of arable land force the untenable situation where the outcomes for the environment are given much lower immediate priority.

At the core of identifying and understanding the state of the sub-Saharan environment is recognizing (political lenses off) that vulnerable groups lack the ability to adapt to change brought about by environmental degradation. Adaptation requires resources in labor, technology, and capital. The impoverished tend to have much lower resource capacities,

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58 NEPAD REPORT, supra note 38, at 20.
59 Id.
60 Id. at 20.
61 See id. (estimating that “some 500 million hectares of land in Africa have been affected by soil degradation since 1950, including as much as 65 per cent of agricultural hectares land.” “Recurrent droughts are largely a manifestation of land degradation in the region.”).
62 The United Nations Environmental Program developed the concept of the human vulnerability index. Vulnerability represents the interface between exposure to the physical threats to human well-being and the capacity of people and communities to cope with those threats. Of course, human and industrial activities are not the only threats to the environmental health of vulnerable societies. Indeed, many natural phenomena pose enormous and sometimes catastrophic threats, including events such as floods, drought, fire, storms, tsunami, landslides, volcanic eruptions and earthquakes. See generally United Nations Environmental Program (UNEP), GLOBAL ENVIRONMENTAL OUTLOOK 3 (2002) [hereinafter GEO 2002 REPORT], available at http://www.grida.no/geo/geo3/english/pdfs/synthesis.pdf.
63 Id. at 12.
and therefore bear a disproportionate burden of the impact of disasters, drought, desertification, and pollution. People in developing countries, particularly the least developed countries (“LDCs”), “have less capacity to adapt to change and are more vulnerable to environmental threats and global climate change.” Conversely, poverty remains the main cause, as well as a consequence, of environmental degradation and resource depletion, because poverty tends to increase incentives to exploit natural resources without a resultant significant improvement in the living conditions and livelihoods of the poor.

Finally, the political structure of a society is a key determinant of the people’s ability to determine and define their own relationship with the natural environment. “Participatory democracy is a vital prerequisite for the upgrading of the environment, enabling people to reclaim control and to hold authorities accountable to the communities they purport to serve.” The vulnerability of Africans to environmental impacts is further exacerbated by the inability of such communities to influence policy in any meaningful way. As the drawn-out saga of Ken Saro Wiwa in the Niger Delta illustrates, governing regimes control the political processes to thwart democracy, leaving the poor with no voice in the decisions that impact their natural resources.

64 NEPAD REPORT, supra note 38, at 26.
65 See GEO 2002 REPORT, supra note 62, at 10. See also State of the Environment in Africa, Economic Commission for Africa (UNESCO 2001), available at http://allafrica.com/download/resource/main/main/idatcs/00010021:0bc1b9a35e2a65e4693145a6678874a6.pdf (stating that “the [African] continent is considered more susceptible to the effects of climate change, because limited resources restrict Africa's ability to undertake preventive measures to mitigate the effects of weather and climate extremes.”).
66 See NEPAD REPORT, supra note 38, at 26. See also Africa Society 2008 Report (listing the socioeconomic impact of environmental deterioration on Africa as well as dire consequences of environmental degradation, including: depletion of farming lands; depletion of natural habitat for aquatic and land animals; decline in biological diversity; aquatic pollution, adversely affecting the livelihood of fishing communities and destroying fish and other water creatures; land pollution, adversely affecting the livelihood of farming communities; general health problems caused by aquatic pollution; famine; desertification; and endangering animals like the Ethiopian Wolves, Ethiopian lions, and Gelada Baboons.).
67 Even in democracies, vulnerable societies still do not have a meaningful voice for two reasons. First, the poor are often uneducated on the law and its capacity to influence environmental concerns. Second, and perhaps more significantly, poor communities tend to be dependent upon the very system that is destroying the natural habitat. MAMPHELA RAMPHELE, RESTORING THE LAND: ENVIRONMENT AND CHANGE IN POST-APARTHEID SOUTH AFRICA 202 (1991).
68 Id. at 201.
69 See, e.g., Oshita O. Oshita, Ken Saro-Wiwa and the Trajectory of the Minority Predicament in Nigeria, in BEFORE I AM HANGED: KEN SARO-WIWA, LITERATURE, POLITICS AND DISSENT
With these four unique factors: colonial history, the dominance of agrarian economies, poverty, and totalitarian political structures, all muzzling the environmental agenda, Africa is ripe for a paradigm shift grounded in morality—that rational choice guided and constrained by something deeper than law, and particularly something that flows from within.

II. ENVIRONMENTAL PHILOSOPHY & ETHICS

Philosophical ethics is a process of stepping back to reflect on our decision-making.\(^70\) African philosophers agree that “environmental ethics is meant to articulate the rights, duties, and responsibilities of man to the environment and vice versa.”\(^71\) Environmental philosophy exposes the environmental ethic of a group and helps to explain the choices structured societies make concerning the environment.\(^72\) The process of defining existing philosophies raises the kind of awareness that either confirms the shared ethic of society, or exposes its flaws in such a way that society rallies behind a change in course.\(^73\) According to H. Odera Oruka, a renowned African

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37–40 (Onookome Okome ed., 2000) (tracing the history of the Nigerian government’s marginalization of Ogoni in Niger Delta in support of oil interests in the region). See also id. at xxxi (quoting Ken Saro-Wiwa at his politically orchestrated murder trial: “I am a man of peace, a man of ideas. Appalled by the denigrating poverty of my people who live on richly endowed land [reference to the Niger Delta], distressed by their political marginalization and economic [s]trangulation, angered by the devastation of their land, their ultimate heritage, anxious to preserve the right to life, and to a decent living, and determined to usher to this country as a whole a fair and just democratic system which protects everyone and every ethnic group and gives us all a valid claim to human civilization, I have devoted all my material and intellectual resources, my very life, to a cause in which I have total belief . . . Neither imprisonment nor death can stop our ultimate victory.” Id. at xxxi.).

70 DESJARDINS, supra note 11 (introducing environmental ethics via two levels of thought: the practical level of deciding what we should do and how we should live, and the more abstract and academic level of stepping back to think about how we decide what to do and what to value).


72 Id. at 3–4.

73 See, e.g., Lynn White, Jr., The Historical Roots of Our Ecological Crisis, 155 SCIENCE 1203–04 (1967) (confronting the Judeo-Christian tradition as being the cause of the ecological crisis. Lynn White’s essay provoked much literature seeking to correct what was perceived by the Christian community as White’s misrepresentation of Christian duties towards the environment. Although it is difficult to know precisely what role the essay played in the environmental movement, which resulted in the enactment of landmark legislation such as the Clean Air Act, the Clean Water Act, the Wilderness Act, and the Endangered Species Act in
philosopher, philosophy is the base upon which all social practices are built.\textsuperscript{74} He stated: “when we are forced to justify our lives, to justify our political system, to justify our legal system, to justify our marriage system, the ultimate justification will have to be philosophy.”\textsuperscript{75} If the devastation of nature reviewed above can be taken as signposts of the African-development trajectory, can an infusion of Western environmental ethics be an appropriate morality on which to base the paradigm shift necessary to curb deforestation and desertification—the evil twin sisters threatening not just African agrarian economies, but the climate at large? The central question is: are Western environmental ethics pragmatic ways for Africans to relate to their environment in the manner necessary to drive a response that would reduce the role played by these environmental relationships in climate change? To assume so would require a presumption that Western environmental ethics have universal applicability, and a rejection of the much more convincing notion that morality is shaped by the specific character of a civilization, that is, by the organic markers of its culture.

A. Universalism & Environmental Ethics

“The term ‘universal’ to humankind implies that something applies regardless of race, religion, culture, and national origin.”\textsuperscript{76} Universalism proposes that certain principles are fixed in nature; that they supersede political, moral, or social motivations to modify or qualify the absolute.\textsuperscript{77} On the other hand, cultural relativism views these political, moral, and social differences as necessarily variegating the application of general principles to individual societies.\textsuperscript{78} The debates over whether universalism is an appropriate ethic are obviously subject-matter based. But in order to arrive at a set of universal ethical values, “either (1) an issue needs to be identified as being of universal importance, for example, human dignity and freedom from torture; (2) an end result must be identifiable as universally desirable, such as the right to life; or, (3) the ethic must be an intrinsic part of a universal value system, such as the right to a fair trial as an important

\textsuperscript{74} ORUKA, \textit{supra} note 15, at 182.
\textsuperscript{75} \textit{Id.}
\textsuperscript{77} \textit{Id.} at 3.
\textsuperscript{78} \textit{Id.}
component of universal human rights principles of justice.” Some subjects have such worldwide acceptance as norms that the debate has, for the most part, ended. However, identifying universal values concerning the environment is contentious because environmental values are inextricably linked to history, culture, politics, and development.

The need for morally based regional responses to global climate change, and the limitations of universalism as applied here, find support in Samuel P. Huntington’s clash of civilizations theory. Huntington saw the cultural differences in his eight identified civilizations of the world as being important enough to place the global order in constant tension. The clash of civilizations theory hypothesizes that the fundamental source of conflict in this new world is cultural. Despite the logic of the cultural divide identified by Huntington’s hypothesis, Western environmental philosophy’s domination of the discourse gives the impression that the Western environmental ethic is indeed shared all over the world. However, the

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79 Id. at 4.
80 Louis Henkin, The Universal Declaration at 50 and the Challenge of Global Markets, 25 BROOK. J. INT’L L. 17, 20 (1999) (A common example is the global acceptance that genocide violates the law of peoples, or international law. This natural law principle has such widespread acceptance that in the language of international law, it is a jus cogens norm, i.e., a customary law that cannot be opted out of by individual societies. Even in the absence of specific law and a court with jurisdiction, the international community is prepared to condemn a nation that seeks to annihilate a group for ethnic, racial or religious reasons).
81 Rai et al., supra note 76, at 4.
83 Id. at 47. These distinct civilizations are: Western, Islamic Orthodox, Latin American, Indic, Confucian, Japanese, and African. Huntington does not give pure distinction to the African civilization, listing it as “possibly” a distinct civilization. He explains his perception of Africa as displaying only weak qualities of a distinct civilization:

Most major scholars of civilizations except Braudel do not recognize a distinct African civilization. The north of the African continent and its east coast belong to Islamic civilization. Historically, Ethiopia constituted a civilization of its own. Elsewhere, European imperialism and settlement brought elements of Western civilization. In South Africa, Dutch, French and then English settlers created a multi-fragmented European culture. Most significantly, European imperialism brought Christianity to most of the continent south of the Sahara. Throughout Africa tribal identities are pervasive and intense, but Africans are also increasingly developing a sense of African identity and conceivably sub-Saharan Africa could cohere into a distinct civilization, with South Africa being its core state.

84 Id.
85 A critical voice raised in opposition to the concept of wilderness was that of Indian environmentalist: Ramachandra Guha. See generally Ramachandra Guha, Radical American Environmentalism and Wilderness Preservation, 11 ENVIRONMENTAL ETHICS: READINGS
variations within Western environmental philosophy itself signify the absence of internal cohesion even within Huntington’s discrete groups, let alone across them.

In philosophizing about the environment, some thinkers have unapologetically taken a universal view of the morality of environmental preservation. Universal application underscores the principles of at least three of the most dominant western environmental philosophies.\textsuperscript{86} Animal liberation/rights theory,\textsuperscript{87} deep ecology,\textsuperscript{88} and bio-egalitarianism each implicitly assumes a global, all-hands-on-deck response. The animal liberationist attributes moral consideration to animals on the basis that they, like human beings, are not immune to pain.\textsuperscript{89} Such a formulation does not contemplate abrogation or contextualization. Speciesism is abhorrent to the idea of equality of species regardless of the cultural context in which the animals (a word not favored by founder Peter Singer) exist.\textsuperscript{90}

Deep ecology also does not leave much room for modified adoption. This ethic proceeds on the foundation of eight basic principles, or tenets.

\textsuperscript{86} See Philomena A. Ojomo, An African Understanding of Environmental Ethics, 2 THOUGHT AND PRACTICE 49, 51 (2010) (identifying five primary schools of thought in environmental philosophy: anthropocentrism, animal liberation/rights theory, biocentrism, ecocentrism, and ecofeminism. Ojomo resists the urge to list deep ecology in response to Arne Naess’s contention that deep ecology is not a philosophy but a movement).

\textsuperscript{87} The idea of animal liberation or rights came into the fore as a criticism of speciesism, a natural outgrowth of anthropocentrism. See generally Peter Singer, All Animals Are Equal, in ANIMAL RIGHTS AND HUMAN OBLIGATION (1976) (contending that the ability to feel pain is the primary condition that should afford a creature moral consideration).

\textsuperscript{88} The environmentalist behind Deep Ecology, or ecosophy, a sixth strain of environmental philosophy, disclaimed that his work added a new theory to the body of environmental philosophy. Rather, he argued that deep ecology is a movement, rather than a philosophy. See Arne Naess, Ecosophy T: Deep Versus Shallow Ecology, in ENVIRONMENTAL ETHICS, supra note 42, at 219. (“The term ‘deep’ is supposed to suggest explication of fundamental presuppositions of valuation as well as facts and hypotheses. Deep ecology, therefore, transcends the limit of any particular science of today, including systems theory and scientific ecology. Deepness of normative and descriptive premises questioned characterize the movement.”).

\textsuperscript{89} See Singer, supra note 87, at 154 (stating “The capacity for suffering and enjoying things is a prerequisite for having interests at all, a condition that must be satisfied before we can speak of interests in a meaningful way . . . No matter what the nature of the being, the principle of equality requires that its suffering be counted equally with the like suffering—in so far as rough comparisons can be made—of any other being.”).

\textsuperscript{90} Id. at 149 (“My aim is to advocate that we make this mental switch in respect of our attitudes and practice towards a very large group of beings: members of species other than our own—or, as we popularly though misleadingly call them, animals.”).
The fourth principle states: “The flourishing of human life and cultures is compatible with substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.” This fourth tenet of deep ecology is completely at odds with the reality of population growth in sub-Saharan Africa. If deep ecology were to be applied in the African context, Africans would need to adopt a paradigm shift that seems quite impossible: desist from striving for a higher standard of living. It is difficult to imagine how Africa’s poor can advance the vision of reversing the environmentally unconscious character of upward socio-economic mobility.

Finally, bio-egalitarianism is also couched in favor of a universal application. As with the animal rights theory, bio-egalitarianism is premised on a universal characteristic—the inherent worth of all life forms. Since life is the core element that defines this western philosophy, its proponents do not confine its utility to the Western context. The lines are

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91 See Bill Devall & George Sessions, Deep Ecology, in ENVIRONMENTAL ETHICS, supra note 42, at 231 (emphasis added). See also PAEHLKE, supra note 18 (discussing the rapid population growth in Africa).
92 PAEHLKE, supra note 18, at 9.
93 The sixth and seventh tenets of deep ecology, taken together, state: Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present. The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
94 See generally Guha, supra note 85 (a Third World response attacking the universalist ideals of radical deep ecology spoke against deep ecology’s idea of wilderness, arguing that it was inapplicable in the Indian context where the survival of tribal people is threatened by the western concept of wilderness).
95 Both biocentrism and ecocentrism exist on the other end of the continuum from anthropocentrism. Biocentrism regards all life forms (from bacteria to man) as worthy of moral consideration. Each living organism has purpose, which gives it equal inherent worth with all other life forms. See Paul Taylor, The Ethics of Respect for Nature, 3 ENVTL. ETHICS 197, 213 (Fall 1981) (arguing that from the perspective of a life-centered theory, we have prima facie moral obligations that are owed to wild plants and animals themselves as members of the Earth’s biotic community, and that we are morally bound [other things being equal] to protect or promote their good for their sake. Taylor also took the leap of rejecting the claim of human superiority—“the claim of human superiority is to be understood as asserting that all humans, simply in virtue of their humanity, have a greater inherent worth than other living things.”). Ecocentrism identifies a loophole in biocentrism’s focus on living things. Ecocentrists focus on nature as a whole. See also Ojomo, supra note 86, at 53 (identifying three subcategories of the ecocentric environmental ethic: (1) Aldo Leopold’s land ethic; (2) Arne Naess’s deep ecology; and (3) Rolston’s theory of nature’s value).
drawn between humans and all other life forms, regardless of their geographic location, or more precisely, with complete disregard to local norms or cultural context. The key attribute, *the state of being alive*, transcends cultures and histories and rejects any attempts to conform it to a mere localized context.

Some Western environmental ethics are, by definition, pluralist. By emphasizing the need for structural analyses of power, ecofeminism concludes that any feminist theory *and* any environmental ethic which fails to take seriously the twin and interconnected dominations of women and nature is at best incomplete and at worst simply inadequate. Ecofeminism, is therefore, more about the *process* of creating an environmental philosophy than defining a specific philosophy. Regardless of the civilization from which the ethic springs, it is inadequate under ecofeminism if it disregards the nature of oppressive conceptual frameworks. In this manner, ecofeminism can be thought of as pluralist. However, it too can be pushed into the universalism corner when the ethic is viewed as an assumption that the logic of domination as observed by ecofeminists in the West is a universal logic—i.e., domination of women logically relates to domination of nature in all societies.

The anthropocentric man, in whose company we have so far identified African development economics, sits at the other end of the spectrum, forlorn and shunned by the enlightened world of predominant Western environmental ethics. Anthropocentrism is a kind of baseline against which Western environmental thinkers distinguish and measure the various theories. Each environmental ethic deviates from anthropocentrism

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96 See Karen J. Warren, *The Power and Promise of Ecological Feminism*, 2 ENVTL. ETHICS 125, 130–31 (Summer 1990) (stating that, at least in western societies, the oppressive conceptual framework is a patriarchal one; and many ecofeminists claim that historically, within at least the dominant Western culture, a patriarchal conceptual framework sanctions the argument that women are identified with nature and the realm of the physical; men are identified with the “human” and the realm of the mental).

97 See generally id. (defining ecological feminism as “the position that there are important connections—historical, symbolic, theoretical—between the domination of women and the domination of nonhuman nature, and arguing that because the conceptual connections between the dual dominations of women and nature are located in an oppressive patriarchal conceptual framework characterized by the logic of domination, (1) the logic of traditional feminism requires the expansion of feminism to include ecological feminism and (2) ecological feminism provides a framework for developing a distinctively feminist environmental ethic.”). *Id.* at 125.

98 *Id.* at 139–40.

to varying degrees based on the respective flaw it identifies. For example, ecofeminism contrasts itself from anthropocentrism by attacking the structure of domination that is common to man’s treatment of both woman and nature. Animal rights theorists defend the animal’s worth for moral consideration based on its capacity to feel pain—undermining a central rationale behind elevating humans above other species in an anthropocentrically motivated desire to increase the comfort of man. In short, societies want to be viewed as superior, having evolved beyond anthropocentrism. In the world of environmental philosophy, to be anthropocentric is equal to being primitive, barbaric, torturing, rapists. The victim of this rampaging caveman is not just nature; she is sensing, alive, multi-faceted, and pleading for a revolution that would free her.

So why identify a particularly “African” environmental ethic? After all, the dominant Western philosophies on the environment cover a large spectrum, spanning from the rudimentary anthropocentric views of man to the movement-like tenets of deep ecology. Moral philosophy is the systematic endeavor to understand moral concepts and justify moral principles; it seeks to establish principles of right behavior that may serve as guidelines for individuals and groups. However, moral philosophies are particular to their historic and cultural contexts. While Western environmental philosophies served (and continue to serve) as vehicles towards establishing higher moral relationships between man and the natural world, such philosophies have limited direct application in other parts of the world. Environmental ethics are unique to the experiences of specific cultures and are ineffective when imported wholesale into civilizations that are foreign to their cultural markers.

The articulation of an African environmental ethic, therefore, is crucial for two reasons: first, Africa’s environment is in a qualitatively unique crisis, one that must be considered with exactitude to its context. Second, even with globalization and the creation of the “global village,”

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100 See Warren, supra note 96, at 130.
101 See id. and accompanying text (summarizing ecofeminism).
102 Singer, supra note 87, at 154.
104 See Oshita, supra note 69 and accompanying text.
105 See Rai et al., supra note 76 and accompanying text.
106 See id. (summarizing ecocentrism).
107 See Naess, supra note 88 and accompanying text.
108 See supra notes 69–88 and accompanying text (providing an overview of the dominant Western environmental philosophies).
109 Ogungbemi, supra note 42, at 4.
110 Id.
Huntington’s clash of civilizations thesis still holds in support of the notion that we are not “one world.” A uniquely African environmental philosophy is necessary to define how Africans ought to live in relation to the environment, because an African environmental ethic is the moral canvas upon which Africa itself may advance its own response to African ecological problems, and in turn address its role in deforestation and climate change.

**B. Bottom-Up View: The Organic Markers of African Morality**

A search for articulations of African environmental philosophy can be frustrating if one is expecting robust formulations that represent a body of knowledge, shining light into the moral reasoning of the African. Callicott describes the seeming absence of an African environmental ethic as a paradox: although the mention of “Africa” brings no specific African environmental ethic to mind, it does evoke strong, specific images of wildlife and landscapes.\(^\text{111}\) According to John S. Mbiti, a prolific African philosopher, the “philosophical systems of different African peoples have not yet been formulated, but some of the areas where they may be found are in religion, proverbs, oral traditions, ethics and morals of the society concerned.”\(^\text{112}\)

While it complicates the process of articulating environmental ethics, this apparent void in philosophy is not entirely insurmountable. Callicott noted that it is possible to study moral philosophy in the absence of the traditional sources of evidence, such as the writings of philosophers. Studying societal structures and values may also be instructive. Societal characteristics held in common across Africa may provide the clearest window into the African view of man’s responsibility and obligations towards nature. This bottom-up view studies the primary themes of African societies with the goal of gleaning environmental ethics from rudimentary practice. Two characteristics of “Africanhood” are fundamental to the inquiry: traditional African religion and culture (particularly the culture of communitarianism).\(^\text{113}\)

\(^{111}\) **Callicott, supra** note 6, at 156. According to Callicott, “the mere mention of Africa conjures images in the mind’s eye of wildebeasts, springboks, hippopotami, rhinoceroses, zebras, giraffes, elephants, ostriches, flamingos, crocodiles, lions, leopards, cheetahs, monkeys, baboons, gorillas, chimpanzees, and many other kinds of animals. On the other hand, mention of African culture evokes no thoughts of indigenous African environmental ethics.” **Id.**

\(^{112}\) **John S. Mbiti, African Religion & Philosophy** 2 (1970) (John Mbiti was the first African Professor of Philosophy at Makerere University, the first African university to establish a department of philosophy and religion).

\(^{113}\) By “Africanhood,” I am referring to both the collective experiences of the African individual and, more broadly, the African state that distinctively influences, forms and/or explains
In the conclusion to his essay, *African Biocommunitarianism*, Callicott wrote of the San, the south central African people more commonly known as “bushmen”:

The ecological significance of [the San] rock paintings, of Dogon and Yoruba sculpture, of the African drum and the African dance are beyond the philosopher’s power to state and illuminate (at least, beyond this philosopher’s power to do so). One sees, hears, and feels in these nonverbal modes of human expression an attunement of African peoples to Africa’s timbres and rhythms. What potential have they for an African environmental ethic? How much of Africa’s human responsiveness to the land and care for its creatures is implicit, habitual, lived, rather than explicitly codified? In the unspoken and unthought realm of human knowing, there may repose African resources for an indigenous environmental conscience that other researchers using very different methods may one day disclose.114

Callicott’s observations provide little guidance as to which aspects of African culture this organic environmental ethic may be derived. How could he? Of the 54 countries in Africa, each contains multiple ethnicities—each ethnicity defined by a culture that is in many ways unique. Yet, the idea that culture illuminates an ethic concerning the African’s relationship to her natural environment is not an abstraction when the role of religion in the African context is taken into account. In proposing an analysis of African philosophy, John S. Mbiti pointed to religion as a crucial marker of the general African ethic.115 Religion is indispensable to the articulation of a practical African environmental ethic because it deeply pervades and influences the African psyche. Mbiti wrote:

Because traditional religions permeate all departments of life, there is no formal distinction between the sacred and the secular, between the religious and non-religious, between the spiritual and material areas of life. Wherever the African is, there is his religion: he takes it to the fields

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114 CALICOTT, supra note 6, at 172.
115 MBITI, supra note 112, at 1.
where he is sowing seeds or harvesting a new crop . . . if he is a politician he takes it to the house of parliament. 116

The bottom-up view of African morality therefore emphasizes the pervasiveness of religion in identifying a uniquely African environmental philosophy.

Yet, reducing African culture to its identification in religion does not immediately solve Callicott’s paradox; Mbiti estimated that there are as many as 1,000 African tribes, each adhering to its own religion. 117 It is therefore useful to focus on unifying themes in an attempt to glean even a surface appreciation of the texture of indigenous African religions. A resounding feature of traditional religions is that they are not practiced for their personal or individual benefit, but for their community significance. 118 Traditional African religion is shared by each member of that community and is the thing that defines the community and character. In fact, Mbiti gives the community notion of religion an even more fundamental position by claiming that in Africa, “to be human is to belong to the whole community, and to do so involves participating in the beliefs, ceremonies, rituals and festivals of that community.” 119 This communitarianism in the practice of religion leaks into the common culture of African societies. Placide Tempels wrote in 1956:

The Bantu cannot conceive of . . . the human person as an independent being standing on his own. Every human person, every individual is as it were one link in a chain of vital forces: a living link both exercising and receiving influence, a link that establishes the bond with previous generations and with the forces that support his own existence. The individual is necessarily an individual adhering to the clan. 120

Despite the pervasiveness of religion in African life, the problem with incorporating religious practice and norms into the articulation of an environmental ethic is that there is no “there” in African religiosity. Acknowledging the common hybridization of Catholicism with the many

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116 Id.
117 Id.
118 Id. at 2 (stating that “traditional religions are not primarily for the individual but for his community, of which he is part.”).
119 Id.
120 BENEZET BUJO, FOUNDATIONS OF AN AFRICAN ETHIC: BEYOND THE UNIVERSAL CLAIMS OF WESTERN MORALITY 86 (Brian McNeil trans., 2001).
different traditional African religions, Joseph Cardinal Ratzinger, for example, stated: “[O]ne must say that the longed-for théologie africaine or African theology is more a program than a reality at present.” Judeo-Christian and Islamic influence on environmental ethics is easier to identify because the immutable texts that form the pinnacle of such religions also provide the manuscripts by which adherents practice. Religious text has a pervasive and powerful norm-generating effect on its adherents and those over whom primary adherents exert influence. As a result of this force, environmental ethics have for decades been associated with the dominant religion of civilizations. African religion, on the other hand, is passed down from generation to generation through speech and conduct. Yet, its power to generate concrete norms is nevertheless salient: it requires no conversion, just birth; it cannot be opted out of; and it is not objected to by the modern-day African “state” in the same way that Western religion is wholly, at least formally, excluded from the government in developed nations.

The centrality of traditional religion to the African psyche suggests that an African environmental ethic must be somehow rooted in religion. However as Part III demonstrates, emerging articulations of African environmental philosophy surprisingly do not always ascribe a primary role to religion in forming African morality.

III. PRACTICAL ENVIRONMENTAL ETHICS

A. Emerging Articulations of African Environmental Philosophy

While the academic work by “insiders” on African environmental philosophy is sparse, there are three main African voices to consider on

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121 Id. at 166.
122 See supra note 73 and accompanying text. Lynn White’s essay made a strong claim: “. . . We shall continue to have a worsening ecological crisis until we reject the Christian axiom that nature has no reason for existence save to serve man.” Id. at 1207. This accusation was not easily palatable to many Christians, but White offered a historical basis for his assertion. By tracing ecology through Medieval times, he identified “the victory of Christianity over paganism as the greatest psychic revolution in the history of Western culture.” Id. at 1205. The technologically driven domination by the Christian world had continued unabated, although now its focus had turned from the domination of other humans to the domination of nature. White observed that “our daily habits of action . . . are dominated by an implicit faith in perpetual progress” which “is rooted . . . in Judeo-Christian teleology.” Id. White’s sharpest attack was in his claim that “by destroying pagan animism, Christianity made it possible to exploit nature in a mood of indifference to the feelings of natural objects.” Id.
the subject: Segun Ogungbemi, Lawrence Ogbo Ugwuanyi, and Godfrey B. Tangwa. While each has articulated a different version of African environmental ethics, each describes something that comes from African traditions, and is uniquely African (absent in the Western experience).

In contrast to the century-plus tradition of Western environmental philosophy, an African theory of environmental ethics was only advanced as recently as 1997. Segun Ogungbemi, a Nigerian philosopher, examined the nature of the environmental crisis in Africa and provided some moral and practical suggestions. He identified three principal factors contributing to the African ecological crisis: (1) ignorance and poverty; (2) misuse of science and technology; and (3) political conflict, including international economic pressure. These factors themselves suggest that the root causes of environmental degradation in Africa differ in character and magnitude from those that may be identified in the West. Western environmental philosophy arose out of the need to curb environmental problems caused mainly by industrialization. Being on the frontier of science, the West has not failed the environment out of a lack of knowledge. Instead, Western environmental philosophies have thematically blamed the anthropocentric domination of nature driven by Western capitalism. Ogungbemi’s suggestion that the misuse of science and technology has contributed to the environmental problems in Africa supports a notion that Africa is on the same historic trajectory as its Western counterparts, with the primary difference being that Africa now has the benefit of the West’s unattractive environmental history to take lessons from.

For Ogungbemi, Africans have departed in practice from who they are at the core. He states that in modern Africa, the way in which land has been exploited goes contrary to African traditional philosophy:

> Modern usage of our land by our society does not reflect a similar degree of awareness of the importance of forests and trees for the maintenance of environmental values. The drive to develop has led to wholesale abandonment of traditional practices . . . as if development and modernization

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123 See generally Ogungbemi, supra note 42, at 332.
124 Id. at 331.
125 Id. at 330.
126 See PHILIPPON, supra note 10, at 160 (discussing Rachel Carson’s work that exposed to the public the dangers of the pesticide DDT, and insecticides).
127 See supra note 88 (discussing Lynn White’s argument that Judeo-Christian dominance of nature, driven by science and technology, was the root of the ecological crisis).
were incompatible with conservation of forest and protection of trees. The consequence of this has been a break-down in environmental stability . . . .

Ogungbemi’s notion of traditional philosophy is something he calls the “ethics of care.” The ethics of care derives from the African traditional relationship with nature where men and women recognize the importance of water, land, and air management particularly, the traditional ethic of not taking more than you need from nature. According to Ogungbemi, this is a moral code to “keep a reasonable balance among the various resources constituting the ecosystem.” However, even Ogungbemi admits that the concept of an ethics of care is not unique to traditional Africa. Indeed, his formulation of an African environmental ethic seems to strongly point to some important external applications, even if it is not entirely universal. Yet, if Africans practiced the ethics of care, forests would not be disappearing. Nor would deserts be advancing at the rate at which they are.

Recognizing this parallelism between African practice and values, Ogungbemi takes a giant leap from traditional ethics of care to a formulation he believes is more applicable to Africa’s contemporary situation. His contemporary “ethics of nature-relatedness” is a reformulation of the ethics of care. Key to the ethics of nature-relatedness is that it completely divorces itself from religion.

128 Ogungbemi, supra note 42, at 332 (citing David Okali).
129 Id.
130 Id.
131 See, e.g., id. (citing John Passmore, who wrote: “The traditional moral teaching of the West, Christian or Utilitarian, has always taught men, however, that they ought not so to act to injure their neighbors. And we have now discovered that the disposal of wastes into sea or air, the destruction of ecosystems, the procreation of large families and the depletion of resources constitute injury to our fellowman, present and future. To that extent, conventional morality, without any supplementation whatsoever, suffices to justify our ecological concern, our demand for action against the polluter, the depleter of natural resources, the destroyer of species and wilderness.”).
132 See id. Ogungbemi cautions against taking this overlap too far. His ethics of care, he argues, must not be seen as absolute even though it may have a universal appeal and application. The specific barriers faced by an attempt to deem the ethics of care universal are the questions that shroud the concept itself such as: “How do we know how much we need, given the nature of human greed? Who judges whether we have been taking more or less than we need from our natural resources? If we have been taking more than we need, what are the penalties and how fair are they?”
133 Id. at 5.
134 See Ogungbemi, supra note 42, at 5 (explaining that the ethics of nature-relatedness neither implies that natural resources have a spiritual nature nor attributes the creation of natural resources to a Supreme Being).
experience, and the will. The claim of the ethic of nature-relatedness is that our natural resources do not need man for their existence and functions. It is an ethic that “leads human beings to seek to co-exist peacefully with nature and treat it with some reasonable concern for its worth, survival and sustainability.”

Another attempt at articulating an African environmental philosophy once again seeks to divorce environmental morality from purely religious foundations. Lawrence Ogbo Ugwuanyi, another Nigerian philosopher, does not purport to have identified specific theories of the environment. Rather, he suggests a “fresh basis on which alternative theories of environment from the African worldview could be explored.” He advances three iterations of African environmental ethics—two secular environmental ethics (the first from the bioethical principles of the African world and the second from African morality) and an environmental ethic derived from traditional African philosophy and religion.

Ugwuanyi’s first iteration, his bioethically based theory is grounded in the African theory of life:

Africans have a deep reverential deference for life. Its beginning is elaborately celebrated in pregnancy, birth, naming and initiation ceremonies. Its growth and continuity is leashed in adulthood, and adolescence rites, family rites and communal festivities. Its end is buoyantly celebrated in death rites, and funeral rites.

However, African personhood or individuality is inextricably linked to the community. “One is only ‘human’ in so far as one is part of the kin network.” From this observation of the relevance of measuring and locating human life in the context of other things, Ugwuanyi then formulates an

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135 Id.
136 Id.
137 Id.
138 Ugwuanyi, supra note 71, at 9.
139 Id. at 1.
140 Id. at 5, 7.
141 Id. at 5.
142 Id. Ugwuanyi describes the African theory of life by citing to the observation of Iroegbu and Echekwube. See P. IROEGBU & A. ECHEKWUBE, KPIM OF MORALITY ETHICS: GENERAL, SPECIAL AND PROFESSIONAL (2005).
143 Ugwuanyi, supra note 71, at 5 (citing PATRICK CHABAL (actual Chabal book not listed in Ugwuanyi’s bibliography)).
ethic that “ought” to be in Africa: “The environment in African thought ought not to be seen and understood as an economic item only . . . but where and why to locate the significance and relevance of life itself.”144 The natural environment, under this derived ethic inherently possesses social, metaphysical, and ancestral worth.145

The second strand of Ugwuanyi’s secular environmental ethics is derived from the African moral world (as contrasted with the first strand which is bioethical), in particular the claim that “morality in Africa is grounded in a form of communitarianism.”146 Communitarianism is a theory of shared identity and goodwill.147 From communitarianism flows Africa’s core values: co-operation, consensus, reconciliation, and commonality.148 Based on this claim, Ugwuanyi declares that a relationship with the “environment that generates discord or factions among humanity cannot be permitted” by the African moral principle of communitarianism.149 The African concept of “other,” as applied to the environment means that promoting environmental well-being leads to a greater shared identity and goodwill.150

Most cognizant of the omnipresence of traditional African religion is Ugwuanyi’s third formulation of an African environmental ethic derived from African traditional philosophy and religion.151 His basis for claiming that traditional philosophy and religion are a third source of environmental ethics is the observation that, for traditional Africans, religion is a “complete way of life.”152 African religion is not textually preserved—rather it is captured “everywhere through myths, legends, songs, dance, painting, carving, adages, symbol, sculpture, and language.”153 Lending support to the notion of environmental communitarianism, the practice of traditional religion itself is communal.154 The individual is identified with the religion of

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144 Id. (To illustrate, Ugwuanyi states that it is likely that one can find people who would be prepared to die for land not worth a million naira (Nigerian currency), even when offered ten million naira for it).

145 Id.

146 Id. at 6.

147 Id.

148 Id.

149 Ugwuanyi, supra note 71, at 6.

150 Id. at 7.

151 Id.

152 Id.

153 Id.

An important distinction made in identifying the ethics grounded in traditional African religion is that these traditions have no pioneer, saint, or central proponent:

Unlike other world religions, African traditional religion has no founder. Hence its origin is hardly taken as a subject of interest. It is believed to have evolved slowly through many centuries as people responded to the situation of their lives and reflected upon their experience. Some of the factors which have contributed to the development of his religion include the universal human longing for the infinite; the quest for origin and source of things; the problem of evil, suffering and natural disaster, etc. Man reflected on all these and in search for answer [sic] he discovered that there is a supernatural, superior and living being who is greater than [man] and who controls and maintains the universe.

In his essay Some African Reflections on Biomedical and Environmental Ethics, Godfrey B. Tangwa, a Cameroonian philosopher and the third voice speaking down the sparse well of African environmental ethics, described the traditional African environmental ethic as eco-biocommunitarian, i.e., the metaphysical “recognition and acceptance of interdependence and peaceful coexistence between earth, plants, animals, and humans.” According to Tangwa, traditional Africans were “more cautious in their treatment and attitude towards plants, animals, inanimate things, and the various invisible forces in the world.” This observation is best explained by Ugwuanyi’s description of the traditional personification of natural forces and phenomena, in which he states that whatever (African) people believe to be the home of sacred spirits, that thing becomes sacred: “hills, mountains, rocks, trees, thick forests, etc.” Foundational to Tangwa’s eco-biocommunitarianism is the “slim and flexible line” that exists “between plants, animals, and inanimate things, between the sacred and the profane, matter and spirit, the communal and the individual.”

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155 See generally Ugwuanyi, supra note 71.
156 Id. at 7.
158 Id.
159 Ugwuanyi, supra note 71, at 7.
160 See Tangwa, supra note 157, at 389.
The theories proposed by Segun Ogungbemi and Godfrey Tangwa, as well as the ethical and moral foundations laid by Lawrence Ugwuanyi, do not easily collapse into one simplified single rule; but, what is clear is that each of the theories speaks to something that is both traditional, “of old,” and absent in the Western experience. The point is most vividly demonstrated by Tangwa’s eco-biocommunitarianism, which encompasses the African bioethic (celebrations of the sacredness of all life), the African’s whole existence in his religion and its practice (the blurry line between the matter and spirit), and African communitarianism (nature being a part of the collective reason, will, and experience).\(^\text{161}\)

B. Things Fall Apart: Ethics as Reflected in African State Behavior

The practice of African governments provides a top-down view of the African human relationship with the environment. Importantly, the top-down search for an African environmental ethic suggests what that relationship is, regardless of what it should be. We have considered the bottom-up view (what ought to be) based on the fragments of emerging philosophies and the organic markers of culture and religion.\(^\text{162}\)

If a robust legal framework for environmental protection is evidence of a strong environmental ethic, the history and depth of environmental legislation in Africa presents a perversely confusing contradiction to the perceived African “blank spot” on the world map of environmental enlightenment. One of the earliest conservation treaties in Africa was the London Convention for the Protection of Wild Animals, Birds, and Fish in Africa signed in 1900.\(^\text{163}\) “The aim of the treaty was to prevent the uncontrolled massacre of wild animals and to ensure the conservation of diverse wild species in Africa.”\(^\text{164}\) African states responded to the need to preserve

\(^{161}\) Id. at 389–90.

\(^{162}\) See PAUL TAYLOR, RESPECT FOR NATURE: A THEORY OF ENVIRONMENTAL ETHICS 9 (1986) (Paul Taylor defined what his biocentric egalitarianism theory was designed to do: [a theory of environmental ethics] “is an attempt to establish the rational grounds for a system of moral principles by which human treatment of natural ecosystems and their wild communities of life ought to be guided.” Id. (emphasis added)).


biodiversity as early as the 1960s. This was a period during which most African countries gained independence from their European colonizers. This suggests that the fledgling environmental regulation was not Western, but the rational choices of African leaders to put in place legislation that would protect the delicate, newly de-colonized natural resources. Such an observation strongly suggests a uniquely African high-level environmental ethic.

Huntington characterized Africa as a somewhat copy-cat society, governed by the philosophy of its former colonizers. After all, African law and policy is, even to this day, heavily influenced by the legal norms of its former colonizers. Yet, whether the adoption of domestic environmental legislation and the framing of African-wide treaties in the 1960s is evidence

165 See NEPAD REPORT, supra note 38, at 27 (noting that “[T]he African Convention on the Conservation of Nature and Natural Resources (Algiers Convention) negotiated under the auspices of the Organization of African Unity (OAU), now the African Union (AU), was adopted in Algiers in 1968. The Algiers Convention aims at ensuring the conservation, utilization and development of soil, water, flora and faunal resources in accordance with scientific principles and with due regard to the best interests of the people. The report states that the Algiers Convention anticipated by over two decades many of the sustainable development principles that are embodied in Agenda 21, which was adopted at the United Nations Conference on Environment and Development in 1992 in Rio de Janeiro.”).

166 The counter-argument is that the newly independent governments only legislated to protect the environment because of the influence of the colonial legacy of legislation, and lasting colonial influence that, for many nations, took decades to decouple.


168 Observe for instance, that the dominant government system in Africa’s former British colonies mirrors the British Parliamentary system, fully supported by a legal system based on civil law. In his book, An Introduction to Zimbabwean Law, Lovemore Madhuku states:

In countries that were colonized, including those in Africa, the colonial power imposed a Western legal system. As a rule, the imposed legal system required the colony to adopt some specified foreign laws as at the time of the imposition. The “common law” of a colony was therefore made up of two components: (i) the principles of law contained in the foreign law as at the time of imposition, and (ii) law derived from judicial precedent developed after the date of imposition. This was and is the situation in Zimbabwe. Section 89 of the Constitution of Zimbabwe states: “Subject to the provisions of any law for the time being in force in Zimbabwe relating to the application of African customary law, the law to be administered by the Supreme Court, the High Court and by any courts in Zimbabwe subordinate to the High Court shall be the law in force in the Colony of the Cape of Good Hope on 10th June, 1891, as modified by subsequent legislation having in Zimbabwe the force of law.”

LOVEMORE MADHUKU, AN INTRODUCTION TO ZIMBABWEAN LAW 17, 18 (2010).
of colonial hang-ups or the substance of grassroots notions of an environmental ethic is immaterial. What is clear is that when African countries became politically independent of European control, Africans negotiated, signed, and ratified these treaties in a unified show of concern for the future of the natural environment. "An overwhelming majority of African countries have signed and ratified all the main regional environmental conventions." Further, "[m]ost African states are parties to many of the international environmental conventions." "African countries have ratified the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention), the Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention) and the Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention) ... and are now participating in international efforts to implement these conventions."

The view from the top seems to show that African countries are engaged in robust environmental agreements. What this surface observation overlooks, however, is that most of these agreements do not require anything more than mere anthropocentrism. For example the overt principle behind Africa’s support of bans on the killing of elephants ("CITES"), and the illegal trade of flora and fauna is the protection on natural resources to maximize their future availability and capacity to serve man. When this

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169 NEPAD REPORT, supra note 38, at 27. These "include the Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention), the Convention Establishing a Permanent Inter-State Drought Control Committee for the Sahel, the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa (Bamako Convention), and the Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora." \textit{Id.} at 28.

170 \textit{Id.} at 29.

171 \textit{Id.} Other important international environmental legislation in which African countries have actively participated are: the Ramsar Convention, CITES, the Convention on the Conservation of Migratory Species of Wild Animals, the Convention Concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention), the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change (UNFCCC).

172 \textit{See, e.g.,} Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), March 3, 1973, preamble 27 UST 1090 (undermining the hint of ecocentrism in the treaty’s preamble by highlighting the “ever-growing value of wild fauna and flora from aesthetic, scientific, cultural, recreational and economic points of view”).
human-centered motivation is admitted to, the purported evidence of a deeper, more enlightened environmental ethic in African state behavior disintegrates.

This disconnect takes place at the African center of gravity—the need for (indeed, in some forums, the right to) economic development—severing the African agenda from its roots, its anchor in nature, its heartbeat, its pulsating bonds of shared identity, sacredness, and wholeness.

CONCLUSION AND RECOMMENDATIONS

Even though the power of traditional religion and culture in Africa suggests an environmental ethic that is enlightened, homegrown, and uniquely African, the practical effect of African developmental economics forces a Western-style anthropocentrism, which cannot easily be substituted with the more enlightened traditional philosophy. The result is a dual morality: a uniquely African environmental ethic that is located in the religion and culture of Africa, with its potential to reverse the African environmental crisis, which is subdued by the anthropocentric trajectory of development economics. But by now we have established without debate that the earth’s ecosystem is so interconnected that an African response to its own role in global climate change has no substitute. It is this realization of Earth’s connectedness that elevates the need to push the envelope against this dual morality by deepening the relevance and application of regional or localized moral codes.

The following recommendations may be useful in narrowing the gap between what is and what ought to be in African environmentalism. First, environmental philosophy and the realm of ethical or moral reasoning should be elevated in priority in African environmental discourse. Deepening and widening the theories, even where governments are not ready to implement the balances that such theories require, is a critical component of reconciling what is and what ought to be. Some practical ways to do this include attributing the appropriate level of respect to methods of homegrown philosophical processes such as the Sage process.173 Philosophical education in the formal academic arena should be tailored to address Africa’s most immediate crises, including deforestation, given its interconnectedness to the agricultural base of African economies, its broader implications for climate change, and the vulnerability of Africa’s people to climate impacts.

173 See ORUKA, supra note 15, at 182.
Second, efforts around reducing the economic risk for developing nations to curb greenhouse gas emissions must be infused with a heightened sense of urgency. Because of its own failure—or limited success—at curbing greenhouse gas emissions from fossil-fuel-driven economies, the rich West has lost most credibility to significantly influence developing-world responses to climate change. But the West can still play an important role in the African response by meeting existing commitments and pledges for the North–South transfer of technology. In his book, *Valuing the Environment*, Rainos Malnes wrote: “without international redistribution, there is little doubt that poor countries will take the risk of economic depression today more seriously than the risk of climate-related adversities some 50 to 100 years hence. They can hardly be blamed.” Transfers of appropriate technologies have their basis in the Rio Earth Summit’s 7th principle of “common but differentiated responsibilities.” Under Article 4 of the UNFCCC, Annex II countries (developed countries excluding those undergoing economic transition) agreed to “take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sounds technologies and know-how” to other Parties, i.e., to developing countries and transitioning developed economies.

Third, the rift between what is and what ought to be may be successfully narrowed by riding the wave of nationalism that was renewed in the 1990s in Africa. African nationalism, in its most useful form, seeks to promote indigenous values by validating a return to cultural values and norms. The adoption of policies that balance the need for food and agricultural exports with the need to responsibly respond to continental environmental issues and broader climatic consequences could potentially invoke modern applications of the religious and cultural traditions that once defined the African human relationship to nature. Africa (and consequently, the global climate) would also benefit from adopting practical, sustainable ways of decoupling agricultural practices, from the rising prices.

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174 Raino Malnes, *Valuing the Environment*, in *ENVIRONMENTAL POLITICS* 127 (1995). Malnes describes what he calls the theory of interest, which entails “both a negative duty of not depriving people of what they need to meet vital needs, and a positive duty of assisting them in getting it.”

175 Rio Declaration on Environment and Development, principle 7, June 16, 1992, 31 ILM 874. “States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities.”

176 *Id.* at 858.

for agricultural products through the proliferation of innovative strategies and policies such as low-emissions rural development, and techniques such as holistic management, many of which are based on the traditional methods of conservation.

However, the ideal is for the continent to find a way to collapse African traditional environmental philosophy, particularly the seed formulations of Ugwuanyi, Ogungbemi and Tangwa, into practice. After all, as Godfrey Tangwa wrote: “In the domain of morality, correct practice without theory is preferable to correct theory without practice.” Harnessing the old morality, a seemingly gigantic feat for any civilization, is probably the only way that Africa can begin to reverse the demise of its natural landscape and mount an appropriate, moral response to its own role in the destruction of the global ecosystem. Similarly morally based responses by the rest of the developing world may aggregate across the tropics to play a surprisingly significant role in whether our generation ultimately avoids the worst impacts of climate change. Given the ethical rationale most familiar to their own cultural experiences, even the poor can place greater value on the global commons.

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178 See, e.g., the bottom-up movement to bring about reductions in emissions from deforestation and land degradation in tropical states and provinces across the globe through the efforts of the Governors’ Climate & Forests Task Force (“GCF”), a collaboration of 22 tropical states and provinces who are working together to develop sustainable pathways to low emissions rural development, including the establishment of jurisdiction-wide programs to reduce deforestation and land degradation (“REDD+”). Despite having the second highest rate of deforestation in the world, Africa’s participation in such South–South linkages and networks has been limited. See generally Governors’ Climate & Forests Task Force, http://www(gcf taskforce.org.

179 For details on this approach and how it is being applied to the African landscape, see Savory Institute, which coined the term “Holistic Management” as applied to livestock and grazing. Holistic Management embraces the complexity of nature, and uses nature’s models to bring practical approaches to land management. The planning procedures embedded in the Holistic Management approach are designed to incorporate this complexity and work with it. See generally Institution & Title: Savory Institute, Holistic Management Overview, http://www.savoryinstitute.com/holistic-management/#sthash.a3vjdZp3.dpuf (last visited Nov. 5, 2013).

180 Tangwa, supra note 157, at 387.