



## AFRICA'S DEVELOPMENT, ENVIRONMENT AND ALDO LEOPOLD'S LAND ETHIC

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### Abstract

*It is a recognizable fact that Africa, like other continents, needs development in this contemporary time. Africa is considered to be one of the least, if not the least developed continent in the world in terms of modern infrastructure and information communication technology. It is also a recognized fact that every form of development has environmental impacts. The enormous environmental cost of development is often neglected in Africa. Both African countries and companies have devoted less than expected to environmental conservation. Africa needs both development and environmental conservation. To navigate the tension between development and the environment, a new worldview that prioritizes environmental conservation and at the same time promotes authentic development is imperative. Aspects of Aldo Leopold's Land Ethic can be useful in this regard. Analytically these issues are investigated in this paper which finds and concludes that Africa needs development while at the same time conserving her environment.*

**Keywords:** *Africa, development, environment, land ethic, and Aldo Leopold*

### Introduction

There is a type of development that is simply anthropocentric and shows little or no concern for environmental wellbeing or the welfare of non-human entities. Even when it shows concern about the environment, this concern does not manifest in real policy and practices that protect the environment. It pays lip-service to the environmental question. A negative impact of this type of development is adequately described by Francis (2015: 21) thus:

*Each year hundreds of millions of tons of waste are generated, much of it non-biodegradable, highly toxic and radioactive, from homes and businesses, from construction and demolition sites, from clinical, electronic and industrial sources. The earth, our home, is beginning to look more and more like an immense pile of filth. In many parts of the planet, the*

*elderly lament that once beautiful landscapes are now covered with rubbish. Industrial waste and chemical products utilized in cities and agricultural areas can lead to bioaccumulation in the organisms of the local population, even when levels of toxins in those places are low. Frequently no measures are taken until after people's health have been irreversibly affected.*

The above is just an aspect of industrial development. Industrial and technological developments that do not adequately account for its negative effects in order to mitigate it for human and nature's wellbeing is unsustainable and not good for Africa's present and future. The core thesis of this work is that as Africa strives to be more developed in technology and science, it should do so with ethical and humanistic values in mind, and with the values proposed by the environmental thinker, Aldo

Leopold in his “Land Ethic.” In carrying out this research the paper will make some conceptual clarifications. The situation and negative impact of development in Africa will then be examined. When this has been done Aldo Leopold’s “Land Ethic” will then be analyzed. The implications of this ethic for industrial and technological developments are also looked at before the work is brought to conclusion.

### **Conceptual Clarifications**

The following terms-African development and ethics are helpful in tackling the challenge before this paper. Africa is the second largest continent in the world. The Africa that is written about in this paper is continental Africa made up of 54 countries. These countries are: Mozambique, Madagascar, Mauritius, Mauritania, Nigeria, Morocco, Ghana, Chad, Ethiopia, Democratic Republic of Congo, Djibouti, Cote d'Ivoire, Niger, Egypt, Tunisia, Equatorial Guinea, Gambia, Rwanda, Gabon, Kenya, Lesotho, Central African Republic, Algeria, Senegal, Seychelles, South Africa, Zimbabwe, Cameroon, Republic of Congo, South Sudan, Liberia, Mali, Sao Tome and Principe, Somalia, Guinea, Botswana, Burundi, Sierra Leone, Burkina Faso, Sudan, Togo, Cape Verde, Eritrea, Guinea-Bissau, Namibia, Benin, Tanzania, Angola, Uganda, Comoros, Malawi, Swaziland, Libya, and Zambia .

Africa like every other continent is undergoing various forms of development. Modern industrial and technological developments are taking place in Africa and have profound effects on the environment of Africa. Here it is important to ask, what is development? There are various meanings and dimensions of development. All of them cannot be examined here. It will suffice to zero in on modern industrial and technological development that is the concern here. Modern industrial and technological development includes the advent and rapid expansion taking place in all the media of information communication technology (ICT)-the internet, air travel, land and ocean transportation, establishments of factories and various manufacturing industries for the production of various goods and services, the equipment and materials related to ICT, construction of roads and other social infrastructure, etc. As Shah (2016)

argues and taking ideas from Dudley Seers, development relates to improvement in economic and social conditions of a country with regard to that country managing her human and natural resources; and even though people may make value judgement on development from cultural perspectives, true development should lead to a better life for the people. Barder (2012: 6) rightly avers that development is more than wellbeing of individuals or systems, rather it includes the capacity of political, social, and economic systems to sustain that wellbeing and progress that have been recorded. African development is understood here as essentially development that is owned and managed by the African people or countries. It is the various processes of social, economic, political, technological, and industrial structures put in place to enhance the continuous wellbeing and peace of the African people. While Africans can learn from western and eastern patterns of development, they should not be swallowed uncritically.

As various African countries expand their social, economic, political and cultural infrastructures in roads, railways, waterways, airways, education, health, entertainment, etc; facilities, factories, buildings, and other material installations are created and founded on the land. There is hardly any form of modern industrial and technological developments that do not take place on the land and its atmosphere. It should also be recognized as Greenpeace cited by South African Broadcasting Corporation (2013: 3) notes that: “African governments face several challenges in implementing environmental protection mechanisms. Sub-Saharan Africa suffers from some serious environmental problems, including climate change, water pollution, coal mining, nuclear waste, deforestation, overfishing and industrial agriculture etc.”

As for the term, ethics, it is concerned with human behaviour in terms of what is right and what is wrong. The domain of ethics for many centuries was limited to human behaviour with regard to other humans. Human relationship with the non-human world, the natural environment was not considered a subject of moral judgments or decisions. Humans were perceived to be free to do whatever they desire

with nature. The earth was there to be conquered and dominated by humans. The birth of environmental ethics from the 1960s has changed all of that. What humans do with regard to the non-human world is now a subject of right and wrong. A foremost founder of environmental ethics as a discipline, Rolston (1988) has noted in his classic work, *Environmental Ethics*, that the discussion on human response to nature as an ethical one is a recent discovery in philosophy, but it is a necessary one, for humans do not only live in cultural communities, they also live in natural and in the ecological community.

### ***Environment and Development in Africa***

It should be noted that much can be written about Africa's development. It will not be wise to enter into the issues in all dimensions of development in Africa, less the focus of this paper is lost. Every form of material development has impact upon the land and its environment. Think for instance of the construction and building of roads, railway lines, seaports, airports, motor parks, etc; all these involve some forms of construction, moving of the earth, digging of foundations, use of water, transformation of construction facilities and so forth. There are places in Africa even Nigeria where environmental impact assessments are never done and even when they are done the process is marked with corrupt practices. Construction takes place without care for the earth and its organisms.

Industrial facilities produce a lot of waste and discarded materials. One of the great challenges of modern civilization is how to manage waste. Another problem that modern industrial technology has created is pollution. There is pollution created from extractive industries in the process of mining for minerals. Industrial development in Africa has also had a great negative impact on the social environment of humans. With regard to Kenya, Maathai (2010) has noted that the environment around Mount Kenya has been seriously degraded and deforestation is taking place at a high rate. Ethiopia is also experiencing deforestation, desertification, drought coupled with climate change. Ikeke (2016) has discussed in detail desertification taking place in Northern Nigeria. Environmental

problems that are discussed about one country very often are also being faced by other African countries. Major environmental problems are also taking place in the Horn of Africa. These include terrorism, drought, famine, and displacement of people. Adeola (2009) avers that significant environmental destruction such as deforestation, toxic waste dumping, destruction of soil and water, frequent oil spills and leakages, gas flaring and socio-economic poverty and injustice have taken place in the Niger Delta as a result of oil exploration for development. One of the major causes of environmental degradation in Africa is the struggle for natural resources. Natural resources are often struggled for by rebel groups to line their own pockets while on the part of government they are mined for development; but this development rarely comes to the people as corrupt government officials embezzle the money. Feleke (2009) has shown how throughout West Africa, the Democratic Republic of Congo, the Horn of Africa there is one struggle over resource or the other that have taken place in the past or is taking place now. In places like Liberia, Sierra Leone, Democratic Republic of Congo, Sudan and Somalia resources conflict are taking place. Most of these environmental problems are precipitated or compounded by human factors such as unplanned urbanization, rural-urban migration, industrialization, etc. Day after day manufacturing facilities are being built in many African states.

Resource conflicts affect both development and the natural environment. It takes away financial resources from development projects as financial resources for projects are channeled towards warfare. There is development of weapons of warfare and security infrastructure which takes place on the land. This security infrastructure which includes movement of troops and heavy equipment destroys land and organisms in the land. The fact is that every form of development affects the health and wellbeing of the land. It is not that development of infrastructure should not take place in Africa; but that development should be done in a sustainable manner that protects wildlife, the oceans and rivers, the mountains, the peoples and culture on the land. Jdenis (2008) propounds:

*For a continent that is dependent on its natural resources to achieve growth, the challenge of ecologically-friendly sustainable development is daunting. Current patterns of extraction of non-renewable resources such as gold, diamonds and crude oil have had an untold impact on the environment. In Nigeria, oil spills and gas flares have polluted the environment significantly for more than 50 years. The 2008 target set forth to eliminate gas flaring increasingly appears to be impossible to achieve. In Southern Africa, abandoned mine sites have constituted an environmental menace. The loss of productive land, surface and groundwater pollution, and soil contamination are part of the legacies of oil and mineral exploration. Africa cannot afford the current approach to resource extraction. If the trend of unsustainable oil and mineral extraction is allowed to continue, environmentally sustainable development in Africa will continue to be a great challenge.*

When it comes to environmental protection African governments and companies have a very poor record. Development with little or more care for the environment is trumped over environmental health. Shine (2015) for instance has revealed that African governments lack a high priority for environmental care, suffer from poor implementation of environmental policies, have inadequate environment legislation and institutions, low investment in environmental protection projects, etc. Chinese companies that have poor environmental records in foreign land are having a field day in Africa, they have huge investments in establishing factories and industries without care for pollution, and they have high importation of products from endangered animal species such as elephants and rhinos, and hardwood. Shine (2015) avers again that:

*Many African countries attach a low priority to environmental protection, have understaffed environmental bureaucracies, and have even worse records for countering corruption than does China. Numerous African officials are also reluctant to call out Chinese companies that engage in unacceptable environmental practices because they do not want to jeopardize Chinese investment or good relations with the government of China. Consequently, it will often be up to the Chinese company to take the initiative in ensuring better environmental practices. In the final analysis, it is in the interest of both China and the African countries to pursue sound environmental practices and sustainable development.*

For Desiree (2016), the African drive for development is often at the cost of environmental protection. He notes many roads are being built through Africa to mine for resources and forest materials and companies from Canada, USA, Australasia, and China are struggling for Africa's natural resources with little care for its environment. What all these reveal is that there is poor environmental protection in Africa. Much more needs to be done. In seeking for a solution to this issue, Africans should not limit themselves to African wisdom. After all, when it comes to other issues such as development Africa has not limited herself to Africa technologies or development strategies. While not neglecting her cherished values Africans can learn from other societies and cultures. Aldo Leopold's Land Ethic that is discussed below is one strategic wisdom paradigm from a western culture that can be helpful to Africa.

### ***Leopold's Land Ethic***

A few words on Aldo Leopold would be helpful here before his philosophy on the Land Ethic is outlined. Leopold Foundation (2016) and Encyclopedia Britannica (2013) present his brief biography as given

below. He was born on January 11, 1887 and was raised in Burlington, Iowa. He died on 21<sup>st</sup> April 1948, near Madison, Wisconsin, a year before the publication of his major work, *A Sand County Almanac*. At an early age he spent time watching, observing, and writing about nature. He attended the Yale School of Forestry and graduated from there in 1909. At a time he worked at the US Forest Service in Arizona and Mexico (from 1909-1928). At the age of 24 he was supervisor for the Carson National Forest in New Mexico. In 1992 he developed a proposal on managing the Gila National Forest as a wilderness, and this would become the first US national wilderness in 1924. He taught at the University of Wisconsin from 1933-1948. He directed the Audubon Society from 1935. He was a founder of the Wilderness Society in 1935. His book on Game Management was published in 1933. He is notable for being the father of wildlife ecology, wilderness system, conservationist, forester, philosopher and educator.

Leopold reveals that the understanding of the dimension of ethics has been evolving. In the days of the myth of the god-like Odysseus women were subject of ethics but slaves were not included. Today ethics include many fields of human conduct and now it must be extended to how humans relate to the land or the earth. Leopold (2003: 38) states clearly that: "There is yet no ethic dealing with man's relation to land and to the animals and plants which grow upon it. Land, like Odysseus' slave-girls, is still property. The land-relation is still strictly economic, entailing privileges but not obligations."

He uses the idea of community in describing the land. Community now as he argues is not simply the human community. It includes the soil, waters, plants, and animals. All these he says is collectively called the land. It is not enough, he argues, to sing beautifully of the land as that of the brave and the free yet it is simply seen as a property to meet human needs and plants and animals are being destroyed. The Land Ethic affirms the right of the land and the entities in the land to existence and survival. In his direct words, Leopold (2003: 39) says: "In short, a land ethic changes the role of Homo sapiens from conquerors of the land-community to plain member

and citizens of it. It implies respect for his fellow members, and respect for the community as such." When humans conquer they destroy the earth community and themselves. Humans are just members of the biotic community and ought to live in mutual relationship with other 'beings' in the earth community.

Conservation which describes a relationship of harmony between humans and the earth is needed but the way that conservation education has taken place shows that there is still something lacking. Conservation requires a social conscience that is concerned not simply for people but the land also. He opines that the members of the earth community should not simply be looked upon for their economic value for there are things in the earth community that may not have an economic value but have ecological value as they are members of the earth community and they provide stability for the community and also the integrity of the community depends on them. Leopold (2003: 42) avers:

*To sum up: a system of conservation based solely on economic self-interest is hopelessly lopsided. It tends to ignore, and thus eventually to eliminate, many elements in the land community that lack commercial value, but that are (as far as we know) essential to its healthy functioning. It assumes, falsely, I think, that the economic parts of the biotic clock will function without the uneconomic parts. It tends to relegate to government many functions eventually too large, too complex, or too widely dispersed to be performed by government.*

In Leopold, humans are called to evolve, develop and cultivate an ecological consciousness. Leopold (2003: 41) writes that: "No important change in human conduct is ever accomplished without an internal change in our intellectual emphases, our loyalties, our affections, and our convictions. The proof that conservation has not yet touched these foundations of conduct lies in the fact that

philosophy, ethics, and religion have not yet heard of it”

### ***Authentic Development and the Land Ethic***

Laurance as cited by Morell (2015) says that: “No one disputes its need for food and economic development. But these corridors need to be built without creating environmental crises.” Beyond science and technology there is need for an eco-humanistic ethics that moderates development. The word, eco-humanistic is used here deliberately. Every form of development should take into consideration both the needs and wellbeing of humans and the natural environment. If any aspect of this is neglected there will be no authentic development. This is where the Land Ethic comes into play.

African development has been bedeviled by a lot of problems and challenges. The main challenge that is of concern here is the environmental challenge. Development in Africa has produced a lot of environmental challenges. The drive for development has often ignored environmental concerns. Development in Africa in many places has become essentially anthropocentric as only the wellbeing of humans is taken into consideration. The creation of industries, factories, and technological equipment often requires space and in the process virgin forests are destroyed. In many places environmental impact assessments are hardly done before the siting of factories and manufacturing industries.

The Land Ethic, like every other theory, suffers from its own limitations. It was written with a different cultural worldview in mind. It should not be applied uncritically to the African situation. One of the major criticisms of the Land Ethic is that it can lead to eco-fascism. Callicott (2001) notes that: the Land ethic is rooted in holism but this also has become a liability. For Callicott, all members of the community are to foster the integrity, stability and beauty of the biotic community. He notes that, it is difficult to place the same responsibility on other organism as humans. All are members of the earth community but not necessarily equal members in terms of responsibility. Other members of the earth community may act by

innate drives but humans often have to act by choice. Callicott notes that anything that threatens these values of stability, integrity and beauty is wrong.

The following writers: (William Aiken, Tom Regan, Frederick Ferre, and Kristin Shrader-Frechette) see the Land Ethic as morally unacceptable as it puts obligations on humans to allow the death of humans to happen to foster the stability and integrity of the land. Frederick Ferre as quoted by Callicott (2001:211) propounds that:

*Anything we could do to exterminate excess people... would be morally “right”! To refrain from such extermination would be “wrong”! Taken as a guide for human culture, the land ethic - despite the best intentions of its supporters – would lead toward classical fascism, the submergence of the individual person in the glorification of the collectivity, race, tribe or nation.*

Callicott opposes these authors named above by affirming that the Land Ethic should not be taken to imply “environmental fascism.” Callicott (2011:211) notes that the Land Ethic is to be taken as one ethic among many others for “the Land ethic is an accretion...to our several accumulated social ethics, not something that is supposed to replace them.” Callicott also notes that citizenship duties to the biotic community do not cancel duties to the global human community in promoting human rights.

Every implication of the Land ethic should not be implemented as they are drawn from the Land ethic. There are positive ideas from the Land Ethic that can be applied to the African process of development. The land has value not simply for economic development. Aspects of African traditional thought already affirm that the land is sacred. In some communities the land or the earth is perceived as a goddess. All these imply that the land should be cultivated with care and caution. Humans are to use the resources of nature with wisdom and prudence. The Land Ethic affirms that humans are citizens with other beings in the biotic community. The values of stability, integrity and beauty are important values

not just for the earth but also for humans. If the ecosystems and the earth is not stable and working in harmony with itself then it will equally affect humans.

African development that neglects the values of stability and integrity will destroy Africa in the present and in the future. Maathai (2011:239-240) writing on the environmental challenges that Africa faces in the push for more development notes that: “Achieving each of the eight MDGs depends heavily on healthy ecosystems but this fact is often overlooked, and the seventh MDG has not received as much attention as the others. In my view, however, it is the most important, and all of the other goals should be organized around it. What happens to the ecosystem affects everything else” Even though there has been a shift to the Sustainable Development Goals the issue remains the same. Without a healthy ecosystem and a land that is stable and balanced, every form of development is endangered. Water and other natural resources needed for development depends on a healthy land. A land that is polluted and degraded can cause human ill-health and impede overall human wellbeing.

Much environmental destruction whether intentional or unintentional are caused by what Maathai (2010: 43) would call insatiable quest for more resources and attitude of seeing things as existing for human utility; and a worldview that:

*...sees there are more trees to be cut, more land to be utilized, more fish to be caught, more water to dam or tap, and more minerals to be mined or prospected for. It is this attitude towards the earth, that it has unlimited capacity, and the valuing of resources for what they can buy, not what they do, that has created so many of the deep ecological wounds visible across the world.*

The environmental crisis cannot be solved without a change in perception and worldview. It cannot be solved with the same worldview that caused it. This is where the Land Ethic becomes useful and relevant. If not for anything, the Land Ethic teaches the value

of the land and the need to respect and protect the land from human practices that make it unstable, wounded and bleeding. Humans should move from the image of being conquerors and controllers of the earth. As members of the earth community; though with enormous responsibilities, they are to act as stewards and caretakers of other members of the earth community.

### **Conclusion**

It is true that Africa needs both environmental protection and development. It needs an authentically sustainable development that respects nature; and socio-economic developmental projects that enhance human wellbeing and development. The point echoed above on the inadequate government response and the need to prioritize environmental conservation need to be re-echoed here using the words of Maathai (2011: 250) who opines thus: “I am often asked whether a trade-off is required between the environment and development. I always say no. We need and must have both; what is needed is a good balance between the two. Africa is still rich in natural resources that can be used sustainably and equitably for the benefit of her people.” In the light of this, Maathai (2011) notes that African governments should prioritize environmental conservation by devoting more budgetary allocation to this conservation.

In all, there is need to promote both development and environmental conservation. This can be done by recognizing the entire ecological community and humans making use of the things of nature with care, prudence, and doing less damage to the earth in the process of development. With this mindset Africa will develop in a balanced manner while taking care of the environment.

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