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PHILOSOPHICAL CHALLENGES IN ENVIRONMENTAL MANAGEMENT EDUCATION IN NIGERIAN UNIVERSITIES

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Abstract

University disciplines have overtime developed philosophical platforms through which the definition, content and methodology of their disciplines emerged. In law its philosophy is embedded in Jurisprudence, in History, Historiography, in Geography, History of Geographic Thought and in Science, History of Science. In Environmental Management the development of its philosophy is constrained by its nature, derivation from several existing bodies of knowledge, and its recent emergence as a discipline. But disciplines which borrow extensively from established disciplines, such as Urban and Regional Planning, have developed philosophical standpoints. Urban and Regional planning has History of Town Planning. Attempt to evolve a philosophy for Environmental Management is complicated by the fact that the global environment is changing very rapidly with emerging theories and empirical research becoming increasingly more sophisticated, while causes, effects and solutions to environmental problems are pursued in a variety of disciplines. Environmental Management is a chemistry of arts, social sciences, sciences and applied sciences. Despite this congery, comfort comes from the discipline being a melting pot. This paper attempts to chart a course for the development of not only the philosophy, but also the history of the emergence of global concern for sustainable management of the biosphere.

Keywords: *anthropocentricism, definition, ecocentricism, environmentalism, history, philosophical challenges*

1.0 INTRODUCTION: DEFINITIONAL PERSPECTIVE:

The Short Oxford English Dictionary (Illustrated) (Onions, (ed) 1970) defined philosophy as "…the study of the general principles of some particular branches of knowledge…" The New Webster's Dictionary of the English Language, International Edition (Lechner, 2005:755) defines philosophy for the purpose of this discourse as the "…systematized principles of any subject or branch of knowledge" such as the philosophy of History. Finally the New Universal Library, vol. Ten (1968:462-464) dealt with the evolution of philosophy as a discipline of study from antiquity to date. In its current state it includes logic, philosophy of science, ethics, political philosophy, aesthetics and metaphysics (consisting of ontology and epistemology). We pick aspects of the discourse of this source that are relevant to our paper. It argues that "…the essence of philosophy in its approach is in its application to a particular set of facts of a crucial reflective standpoint, and in its attempt to discover the significance of these facts and their relation to the rest of human experience". It then concludes that we might have for example, a philosophy of religion, a philosophy of music, art or indeed any

branch of human activity. It is in this domain that this discussion situates the philosophy of Environmental Management.

David Harvey (1989) in his book ***Explanations in Geography*** (pp.3-7) in trying to explain the link between philosophy and methodology, characterized philosophy as the beliefs upon which we rest the objectives of our study – the individual view of life and living. The manifestation of these beliefs in Environmental Management will form the philosophy of our discipline. As we shall see later, there are many such philosophies. Each provides us with a distinctive view of the nature of Environmental Management. Philosophy is concerned with speculation, with value judgments, with inner questioning regarding what is or not worthwhile. Harvey argues that philosophy and methodology have linkages as there are methodological issues which cannot be resolved independently of philosophical beliefs. He, however admits that the job of the methodologist is concerned with the logic of explanation, ensuring that arguments are rigorous, that our references are reasonable and that our methods are internally coherent (Harvey, 1989: viii)

Consequent on these definitions and clarifications the underlying concepts are "general principles, particular sets of facts of crucial reflective standpoint, attempt to discover the significance of these facts and their relation to the rest of human experience". It is because of this that different branches of study have their philosophies. For example, Law has Jurisprudence or the Law of Juridistical Sciences; History has Historiography, in Geography we have History of Geographical Thought and Contemporary Philosophy and Methodology of Geography. In Political Science, we have Political Thought. In the sciences, we have History of Science. In Architecture, we have the History of Architecture and even in new disciplines like Urban and Regional Planning, we have History of Urban Planning. Can we say the same thing of Environmental Management? Your guess is as good as mine.

The rest of this paper consists of three parts. The next section discusses the challenges facing the evolution of a Philosophy of Environmental Management. Section 3.0 attempts to suggest the content of the Philosophy of Environmental Management. Section 4.0 is the conclusion.

2.0 PHILOSOPHICAL CHALLENGES IN ENVIRONMENTAL MANAGEMENT.

The development of a philosophical platform in Environmental Management (EVM) is constrained by a number of factors, including the very nature of the course, the recency of its emergence and the absence of a universally acceptable definition of the discipline. This has arisen because EVM is not an independent field of study, as physics or chemistry, but is a chemistry of a sort deriving its origin from a multiplicity of disciplines, each of which sees the discipline from its prism. A listing of the disciplines from which EVM derives its structure puts this in proper perspective. These include Chemistry, Physics, Economics, Forestry, Botany, Zoology/Biology, Geology, Law, Political Science, Sociology, Psychology, Mathematics/Statistics, Geography, Meteorology/Climatology, Demography/Population Studies, Civil Engineering, etc. The reality is that these disciplines see EVM from their disciplinary perspectives.

In opposition to pigeon-holing environmental studies in disciplinary cubicles, EVM is a synthesis of the substance and essential principles of these several fields of study. EVM has embraced a wide range of topics with no generally accepted methodology. In a sense, the question may be put as to whether EVM is an independent field at all, since it includes chips of all the above disciplines and more. I hasten to add that even though no universally

acceptable definition and scope exists at the moment, it has a central core that has underlain the field, and which can lead to a common subject matter defined in most general terms **as an orientation towards a better management of the environment and its resources and the activities of man and nature to achieve an environmental balance which will guarantee sustainable development both now and in the future.** The former USA Vice President Al Gore (1992:12) goes beyond just this balance

> …the world's ecological balance depends on more than just our ability to restore a balance between civilization's ravenous appetite for resources and the fragile equilibrium of the earth's environment; it depends on more, even, than our ability to restore a balance between ourselves as individuals and the civilization we aspire to create and sustain. In the end, we must restore a balance within ourselves, between who we are and what we are doing. Each of us must take a greater personal responsibility for this deteriorating global environment; each of us must take a hard look at the habits of mind and action that reflect and have led to this grave crisis.

Al Gore laments that the more deeply he searched for the roots of the global environmental crisis, the more he was convinced that it is an outer manifestation of an inner crisis that is spiritual. For this reason Al Gore believes the crisis reaches into every aspect of society including politics, history, science, economics, psychology and religion. This highly philosophical stance of Al Gore points to essential philosophical facts of EVM including the world views, consumerism, perception, ethics and integral spirituality.

2.1 Definition of Environmental Management

There is no doubt that disciplines start without a coherent definition. Since EVM started as a mosaic of already existing bodies of knowledge, it is the responsibility of practitioners in this field to start defining the scope, content, philosophy and methodology of this new field. In defining the discipline, care must be taken to ensure that even students who are exposed to the content of EVM for several years should comprehend the whole of EVM.

People may argue whether a definition of EVM is necessary and that a definition may lead to disciplinary rigidity and constraints to the growth of the discipline. If we accept this view, is there no need for guides which will keep environmental managers on the correct course during periods of constant changes especially in disciplines which till the same ground with EVM. Since EVM is a synthesis of existing bodies of knowledge and since in Nigeria and even overseas, those who call themselves environmental managers, have their roots in various environmental sciences, care must be taken not to define EVM in such a manner that it is either too narrow that it applies to a few specialisms in the discipline, nor too wide that in practice it is useless. I must add that a definition of EVM should be valuable to the layman, the professional environmental manager and to all students in between.

Any specialist or author in EVM must try to avoid defining EVM in terms of what he likes to do or what he thinks it is without careful objective thought. Bias of this kind has been identified in older, more established disciplines. There are three approaches to avoid this, one is to study what environmental managers have done in the past. But the history of Environmental Management is rather too short for any form of crystallization to emerge. The other is to take the word "environmental manager" for granted and so beg the question. But we cannot call any worker in the environment an environmental manager, until we know what EVM is, and so decide whether such a worker has been engaged in EVM or not.

The third approach is to ignore all the work that has been done and work out in principle what EVM ought to be. The advantage of this approach is that it might ultimately give a complete definition in that thinking about what ought to be studied may indicate certain areas that have been ignored until now. This is deductive reasoning, but may present its own problem just as the inductive reasoning. In this realm, one can start with the words "Environmental Management" or with the biospheric interactions/interrelationships as an object of study or with the concept of environmental imbalances or equilibrium. The fear is that this may lead to increasingly divergent conclusions. The evolution of a working definition of EVM as more "environmental management" work is available for inductive reasoning or an agreed starting point is established for deduction lies in approaching the problem from both angles.

One might argue that neither content nor a definition is important, that EVM could be defined by the questions it asks. But the questions it asks will expand especially as technology inflicts new series of harm on the environment, as human population increases and as poverty grips an over-whelming proportion of our people, which as at the end of 2013 has knocked down 112 million Nigerians (Muoghalu, 2013). The danger here is that the environmental manager who has defined his/her work by this subject matter (the content) runs the risk of changing the whole approach and purpose of his/her work as the purpose and problems of the people he is studying change. The above argument really sound philosophical and abstract but are indicative of tracts beaten by other disciplines

A number of conclusions are important. One is that a definition of EVM will keep students and researchers on the right track. Secondly, it provides the basic framework in which all our acquired knowledge about environmental issues can be fitted in. Finally, it helps teachers, even in the university, to understand what they are teaching, to understand the value of EVM and its relevance to education and everyday life. I make bold to say this because as of now in our universities there is hardly any book used in the departments of EVM that is titled Environmental Management book. They are all books written in other fields of environmental sciences, or economics, biology, forestry, chemistry, political science, psychology, civil engineering, etc, There are few or no law experts in Environmental Law. The only sources, we can say that originated in response to environmental management are books or publications on environmental impact assessment.

Even if such materials are not there yet, it is the responsibility of practitioners in EVM to chart a philosophical track for their field in terms of a common subject matter, methods and objectives. Neglect of this may mean that people who call themselves environmental managers may in fact not be doing what a priori may be defined as EVM, but are essentially chemists, soil scientists, climatologists, ecologists, geographers, psychologists, economists, geologists, sociologists or political scientists. This is not to say that these fields cannot enrich EVM. Their research is welcome illumination to EVM just as developments in other subjects/disciplines are adopted in other disciplines. An example is Darwin's evolutionary theory, which finds application in Education in the stages of child development, in Geography in Williams Davis cycle of erosion, in Marketing as the Product Life Cycle or even in Drama as the dramatic cycle.

2.2 The Very nature of EVM and its Recency:

Much of the argument we made in 2.1 above is relevant to this sub-section. I need to quote the introduction to the philosophy of an undergraduate programme in Environmental Management in one our universities in which I participated in the National Universities Commission's accreditation exercise:

> In view of the above, a formal training in applied sciences on how to professionally and ethically manage the scientific and technological impacts of human activities on the environment gave birth to a multidisciplinary professional programme called "Environmental Management"

A typical programme in Environmental Management contains foundation courses such as General Physics, General Chemistry, General Mathematics, Principles of Economics, General Organic, Inorganic and Physical Chemistry and Introduction to Microbiology. Courses are taken from Geography, Geological Sciences, Hydrology, Geomorphology, Biogeography, Climatology, Meteorology, Population, Transportation, Water Resources Planning, Forestry, Biology, Engineering, Law, Economics and Psychology.

The defunct Anambra State University of Technology (ASUTECH), Enugu State University of Science and Technology (ESUT) and Nnamdi Azikiwe University (UNIZIK), Awka, played prominent and frontiering roles in establishing EVM at undergraduate and postgraduate levels. Earlier than these, the Geography Department of the University of Jos produced the first generation of graduates in Environmental Resource Management, while the Lagos State University (LASU) blazed the trail in Environmental Education.

The above shows that at the commencement of EVM programmes, experts from many fields in the sciences, applied sciences, social sciences and law were involved in teaching and supervision of students. The aim of such integration of courses was to produce environmental managers. I was a player in the programme at both ASUTCH, and ESUT in what was essentially postgraduate work. Undergraduate work in EVM was a product of the nineteen nineties of the 20^{th} century, when the NUC directed Federal Universities interested in Environmental Management/Technology at both undergraduate and postgraduate levels to submit proposals. I personally put together the UNIZIK proposal. It was from these proposals that NUC came up with the Minimum Academic Standards for undergraduate programmes in EVM.

The import of the above history is twofold. One is to show the multidisciplinary nature of EVM. A lesson from this is that the very people who started the programme in the first and second generation universities were not trained in environmental management, but taught from their disciplinary perspectives. They, however, produced environmental managers. Many of these frontiersmen made no attempt to cultivate EVM as their own discipline with an intent to deepen it. The deepening of the discipline is therefore left to the products many of whom only did EVM as a necessary appendage to their area of specialization in an age of environmental revolution, which is gathering momentum. There is therefore, a severe dearth of environmental managers to undertake the task of charting a philosophical pathway for EVM. In fact, many of the ground breaking researches in this area are still being done in the many fields in the sciences, social sciences and applied sciences. The implication is that for the foreseeable future EVM will continue to be a multi-disciplinary field. What needs to be done is for researchers and academics in Environmental Management to dig deep into their background disciplines to abstract milestones into the development of environmental thought in those areas. From this a synthesization of thoughts in the several fields will produce a corpus of knowledge in EVM philosophy, bearing in mind that anybody down the ages, who contributed to environmental concern, will be deemed to have contributed to environmental thought and philosophy as is the case in several disciplines.

The second dimension is the recency of EVM as a discipline. It is historic that the first law on environment world-wide was the National Environmental Protection Act (NEPA) signed into law by President Milhaus Nixon of the USA on Jan. 1, 1970. From there concerns heightened to bring about the Stockholm Conference of 1972 on Human Settlement, the Rio Conference on Development and Environment, which produced the "Earth Charter" and the long chain of UN conferences on Sustainable Development, Population, Gender, etc. Even in Nigeria, concern for the environment or environmentalism, came into public discourse from the great drought in the Sahel Region in the 1970s and 1980s, culminating in Koko port dumping of chemical waste. From there desertification, gully erosion, pollution and environmental degradation, consequent on mineral and carbon fuel exploitation, deforestation, natural disasters caught public imagination. These gave rise to the national environmental policy, a national environmental institution (FEPA and later NESREA) and the Environmental Impact Assessment Act of 1992. Other global emergencies, such as global climate change, ozone layer depletion, destruction of biodiversity, nuclear proliferation, rapid urbanization, poverty, consumerism, etc. brought about national and international coalitions.

The essence of all the above discussion is to show the recency of global concerns and so the birth of EVM which has not allowed room for a gradual emergence of EVM philosophy. In talking about EVM philosophy, we have to distinguish between the history of environmental concerns and movement and the underlying concepts, general principles, particular sets of facts of crucial reflective standpoint, discussed in section 1.0 above, which we shall call philosophy. The fact that EVM has not got a collated philosophical corpus of knowledge does not mean that other disciplines do not have one. Two examples will reveal this. Political Science stands out. A large number of authors in this field, such as Al Gore (1992), Rosenbaum (1998) and Eckersley (1992) show a profusion of EVM philosophy. Religion has done a tremendous job including the works Oyeshola (1995), Ibe (2003), Breuilly and Palmer (1992), Laferrire (1984), Dorr (1984, 1990, 1991 and 1993), Gottlieb (1999), Keenan (2000), Pope John Paul II (1990) and Lorrain Smith (1982). In the general field of Environmental Science there is a large body of work: Allaby (1989 a&b, 1995), Bowler (1992), Brewer (1998), Lapinski, et al (2003), Botkin and Keller (1998). A large number of journals and periodicals have come into existence flooding the intellectual market with a profusion of well- researched materials on the environment without a thought on philosophy.

3.0 OUTLINING ENVIRONMENTAL PHILOSOPHY

In my involvement in drawing up EVM programmes and actual teaching in the discipline since 1990 in the defunct Anambra State University of Technology, Enugu, I have come to the conclusion that a discipline without developmental history and philosophy does not exist. I have participated in both NUC academic advisory visitations and actual accreditation of programmes in EVM at undergraduate and postgraduate levels and I have always felt perplexed, especially at postgraduate levels that students are not exposed to the emerging or apparent philosophy in the discipline. I want to end this paper by emphasizing possible areas and topics that could form part of an emerging EVM Philosophy. Depending on availability of academics and interested environmental philosophers, such a course could be divided into two: history of EVM thought and Contemporary EVM philosophy. If the two are to be pursued at the undergraduate level, I suggest that the historical aspect could be taken in the first semester of year four, while the philosophy is taken in either of the two semesters of a year five programme.

3.1 History of Environmental Thought:

Depending on the expertise available in departments of EVM, this could stretch up to the reign of Julius Caesar in ancient Roman Empire when attempts were made to control traffic congestion in Rome and later extended to all cities of the Empire, to air pollution in Britain as early as 1306 stretching to the eighteenth century industrial revolution, when coal replaced charcoal as source of energy, with its attendant smell, dust; deforestation in Britain as early as 1066; the emergence of environmental laws in early 7^{th} to 13^{th} centuries on felling of trees; establishment of forest estates in British and French colonial territories and the USA; emergence of conservation; the emergence of mythical and rational explanations of the world from ancient Egypt through the Greeks and the Medieval period to the evolution of history of the planet by Charles Darwin; Alexander Von Humboldt's contribution to Biogeography on how physical, biological and human activities combined to regulate the environment; the emergence of the theory of continental drift, from plotting the distribution of present and extinct plants and animals in Wegner's ***The Origin of the Continents*** to present theory of plate tectonics, the emergence of ecology out of the theories of evolutions in the 18^{th} and 19^{th} centuries; Darwinism (as ecological theory); Environmental Science as a derivation from History of Science. Then is the modern concern for the environment divided into three phases: 1960 and 1970; 1980s and 1990s.

The First Phase: 1960s and 1970s: These marked a period of expression of great concern for the environment starting in Britain and the USA in the 1960s and showing real and potential adverse effects of modern civilization on the environment (Botkin and Keller, 1998: iv). During this stage, the United Nations (UN) held global conferences in 1972; the USA enacted NEPA; EIA was born and "scoping" became an article of faith in EIA to save time and cost. UNEP was born, etc. Indeed this period saw ecology and green movement flourish.

The Second Phase, 1980s, saw a move from environmental rhetoric to development of alternative ways to solve environmental problems associated with local, regional, and global issues such as human population, hazardous waste, acid precipitation, global warming and stratospheric ozone depletion. People and institutions invested more energy and resources into solving environmental problems and learning more about how the earth works as a system. At this period, the concepts of sustainability and sustainable development emerged.

The Third Phase of the 1990s saw a return to considerable confrontation and emotionalism about the environment (Botkin and Keller, 1998: vii) in which activists place the earth's life support system, the biosphere, at the top of the moral pyramid to be protected at all cost from adverse human interference. At the polar end were those who saw environmentalists and environmentalism as enemy of private property right. This period saw the Rio de Janeiro 1992 UN Conference that produced the ***"Earth Charter".*** I would add that consideration be given to the history of environmentalism in Nigeria.

3.2 Philosophy of Environmental Management:

We wrap up this paper by suggesting some of the philosophical issues that have characterized the long period of environmentalism from antiquity to the present moment. They are not exhaustive by any stretch of imagination.

i. Introduction –overview of environmental ethics and world views
ii. The throw away world view
iii. Environmental stewardship
iv. The spaceship world view in directional societies
v. African traditional world view of the environment

vi. Sustainable earth view- concept of sustainability, origin, key concepts, various facets of sustainability, indicators of sustainability, problems in the realization of sustainability.
vii. From sustainability to sustainable development
viii. Constraints to sustainable development: poverty, population, consumption, trade, industrialization, urbanization and globalization.
ix. Environmentalism: 1960 – 21st century: key ethical models, anthropocentricism, ecocentrism, ecosocialism and ecoanarchism, biocentrism, holisticism, techno-scientism, and physiocentrism.
x. Major streams of Environmentalism: Resource conservation, Human Welfare Ecology, Preservationism, Animal liberation
xi. Facets of Ecocentrism: Autopoiestic intrinsic value theory, Transpersonal Ecology and Ecofeminism
xii. The concept of Greening and varieties – green agriculture, green industry, green architecture, green housing/architecture, etc
xiii. Contributors to environmentalism – NGOs, Churches, scientific bodies (eg NEST, WAMASON, EBAN, EMAN, etc)
xiv. Theological bases of environmental degradation: environmentalism of the spirit, moral ethics.
xv. Principles of Environmental Ethics: Justice and Human rights, sustainability, solidarity, participation, subsidiarity.
xvi. Earth as a system: systems and change, environmental unity, uniformitatianism, changes and equilibrium, earth and life, ecosystem.

4.0 CONCLUSION:

This paper started with depositions of philosophy and extracting from these, the essential aspects for our discussion. Section 2.0 attempted a delineation of the major challenges of EVM, the very nature of EVM, its recency as a discipline and the absence of a universally acceptable definition of EVM. The need for a definition of EVM, the problems faced in attempting one and the pathways for defining it were explored. On the very nature and recency of the discipline, it was argued that even though environmental concern has been there from antiquity, EVM is a discipline of the 1970s and in Nigeria of the 1980s and 1990s. Its multi-disciplinary nature creates a problem for EVM evolving into a well-defined discipline with precise scope, content, methodology and philosophy. In section 3.0 effort was made to chart a philosophical pathway for EVM. We divided this into two: history of environmental thought and philosophical content of the discipline.

I wish to end this paper by saying that, in essence I am flying the kite; that I have no claim to exclusive wisdom or any authority in this topic. My intention is to ignite a debate and virile discourse in an area that will create a niche for EVM in the arena of disciplines. The extent and rationality of future debate will justify the erection of an amalgam that is EVM as a separate course of study. All disciplines passed through this baptism of fire and for many the debate is far from over. The only way to make EVM stand tall is committed academic cultivation and unrestrained reading of everything that expresses environmental concern. These materials are in all disciplines and were published in large numbers from the 1960s to 1990s. I commit this assignment to all who call themselves environmental managers, or environmental management scientists.

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